ACCOUNTING PRINCIPLES

FIFTH EDITION

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PREFACE

A knowledge of accounting is essential to all who wish to understand our modern economic system. Its usefulness is not restricted to practicing accountants, but extends to responsible men engaged in all fields of business and public activity. The growing complexity of business and economic problems has made an appreciation of accounting principles more necessary than ever before. The study of accounting should enable college and university students to understand better not only our modern economic society but also their relation to that society.

Many of the factors underlying previous editions are still valid and are maintained for the present edition. This new edition is planned to serve four groups: (1) those who expect to continue the study of accounting and to practice it as public or private accountants; (2) those who expect to enter business activity and wish a better understanding of accounting as a tool of business; (3) those who are interested in economics and who seek a sounder understanding through a study of accounting; (4) those who anticipate entering other professions and need accounting to measure their financial progress in professional practice. It is not expected that one course in accounting will give a complete training for the practice of accountancy. Rather, it is expected that a study of this book will give students a broad appreciation of the services that accounting is equipped to render to the business world and to economic society.

The continued use of the four previous editions throughout the country gives evidence of the effectiveness of this book as a means of introducing students to accounting. Care has been taken to retain in this revision all the best features of the previous editions. Among these should be noted: (1) the position that accounting and economics are fundamental studies of modern society; (2) the emphasis on a comprehensive understanding of accounting practices; (3) the recognition of accounting as a business function serviceable to management within the business and to owners, creditors, and others without. In developing the subject, the following methods have been retained: a logical development of subject matter, a realism in the illustrative material, the inclusion of thought-provoking questions and problems, and a time-saving technique in illustrations.

Problems included at the end of each chapter represent a recommended quota for the average class. Supplementary problems for each chapter are given at the back of the book. These supplementary problems may be used when laboratory work in addition to that given at the end of

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CHAPTER I

MEANING AND PURPOSE OF ACCOUNTING

STUDY OF ACCOUNTING Accounting principles are concerned with business transactions and their effect on the units that compose economic society. These units include business units, where accounting practice is most fully developed; political units, such as cities and school districts; consumer units, probably the most numerous group; and other social units, such as clubs, hospitals, and churches. While emphasis will be placed in this text on accounting principles applied to business, the student should realize that accounting principles may be applied to each unit in economic society.

A business transaction is an exchange at a price of goods or services. Modern living is characterized by a maze of such transactions. A package of gum at 5 cents and a bus fare at 10 cents, as well as a purchase of a new home at $10,000, illustrate the variety and diversity that are found in business transactions.

From the standpoint of the buyer the study of a business transaction does not end with the exchange or purchase. The goods or the services of the transaction become the property of the buyer. Accounting follows these goods until they are used or exchanged.

Accounting always applies to a unit. It cannot be spread over a group of units. It is a particular automobile manufacturer, not the automobile industry, that has transactions to be accounted for. Each business enterprise has its own business transactions and its own accounting.

As a study, accounting is never-ending. Capable scholars devote their lives and their intellectual energies to analyzing its phenomena. Experienced professional accountants contribute their best thinking to the satisfactory solution of accounting problems. Periodic meetings of national accounting organizations discuss the pros and cons of various accounting practices.

PROPERTY AND BUSINESS OPERATIONS The use of property is essential to the conduct of business. A place for the business must be provided in a building that is owned or rented; equipment adapted to the activities of the business must be owned or leased; if goods are sold, they must be purchased or manufactured and kept in stock prior to sale; if services are rendered, the equipment and supplies used in

rendering the services must be available for use Wherever there is business, property is found

Through the sale of commodities or services, business operations produce funds that may be used to purchase additional property as the business expands These funds constitute an important element in the total property of the business If a business is conducted in such a way that its total property increases the business is said to be successful. In contrast, if its operations result in a decrease in its property, the business is considered to be unsuccessful

An automobile-manufacturing business that grew from a one-man shop in the back lot of a Detroit residence to a huge corporation employing hundreds of thousands of people not only in this country but also in other nations of the world is an example of successful business operations and the accompanying increase in property A five-and-ten-cent business that grew from a small store in a small town in Pennsylvania to a world wide enterprise with departmentalized stores in every large city is another instance of expansion in business and property Most businesses with large investments in property at the present time began years ago as small enterprises with but little property

The property of a business is used in carrying on business activities with the purpose of increasing the amount of that property Ordinarily this is accomplished by the production of commodities or services that satisfy the wants of others As these products or services are sold, the business purchases other products or services that it may use in the production of still more products and services for sale This cycle of purchasing and selling products and services by business enterprises constitutes the institution known as *business*

TRANSACTIONS AND ACCOUNTING VALUES Business transactions are the raw materials of accounting Transactions are also evidence of business activity and life When business is dull or slow, the number of transactions has decreased, when business is keen and active, the number of transactions has increased Without transactions there would be no accounting, there would be no business

The business transaction sets the accounting value This value is the price agreed upon between the buyer and the seller in the transaction; it measures the amount shown on the accounting record For example, if a building is purchased by a businessman for $50,000, that amount is used in the accounting records The seller may have held the building at $60,000 up to the time of sale, the buyer may have

planned to pay $40,000 for it; the building may have been assessed at $35,000; and another buyer may have offered the purchaser $75,000 for it the day after he bought it. These values have no effect on the accounting records. The transaction price, $50,000, sets the value of the building in the accounting records of the purchaser.

If the purchaser should decide that it is better for him to sell the building at $75,000 to the new buyer than to use it himself, then there is a new transaction that sets a new accounting value for the new buyer. The building may appear on the accounting records of the new buyer at $75,000 because that is the price he paid for it.

Or, assume the purchase in 1935 of 1,000 shares of stock at $8 and the purchase in 1945 of 1,000 shares of the same stock at $42. On the accounting summary of December 31, 1948, the 2,000 shares would be shown at the actual cost value of $50,000 ($8,000+$42,000). It is true that the 2,000 shares could have been purchased in 1935 for $16,000 and that they would have cost $84,000 if they were purchased in 1945; nevertheless, the amounts actually paid are the values used in the accounting records.

It is only by recording the prices of the actual transactions of the owner that accounting records can have satisfactory stability. In this way a true record of his transactions and the effect of his transactions on his financial condition are obtained.

RELATION OF ECONOMICS TO ACCOUNTING

Economics and accounting treat of similar subject matter. Both are concerned with property and with human activities relating to the production, exchange, and consumption of this property. It is the point of view that differentiates one from the other. Economics treats of wealth in its relation to society, or the mass of owners. Accounting considers the interest of each owner or group of owners in wealth and the way in which each owner or group manages property. Economics considers the value of this property as a whole as belonging to society; accounting attempts to measure the interest of each individual in the same property.

The economic organization of our present system of society is based largely on the private ownership of property. The property used in business operations is owned by individuals or groups of individuals who carry on business activities for gain or profit.

Because of the individual point of view that characterizes accounting, the amount that one person owes is considered to be property of the same amount in the records of the person to whom the debt is owed. Such amounts may be designated as *payables* and *receivables* respec-

tively All the payables in society as a whole must exactly equal the receivables for whatever is payable by one is receivable in like amount by another From the point of view of economics and society, receivables are not wealth for they are offset by a like amount of payables From the point of view of accounting however the receivable of one business is the property of that business and therefore constitutes wealth in the calculation of the proprietorship of that business

Economics treats of society as a whole of wealth in general, of the wants of people and of the satisfaction of those wants by the same people Accounting sets up individual units the property of each unit, the requirements of each unit and the productive accomplishments of each unit

RELATION OF LAW, ENGINEERING, PUBLIC ADMINISTRATION TO ACCOUNTING While accounting is most closely related to economics it has many points in common with law with engineering and with public administration Whenever any of these fields have business relationships or operate in the field of business transactions accounting is involved

In corporations law and accounting are closely related Corporation law and corporation accounting are essential studies of this dominant organization in business activity It is difficult to have a satisfactory understanding of the corporation and its place in modern economic society without an appreciation of corporation accounting Both accounting and law treat of property and property rights

Engineering involves costs of construction and costs of operation These costs arise in business transactions Engineering is therefore related to general accounting and in particular to cost accounting Engineering projects are carried out by many and varied business transactions that need to be accounted for currently

Public administration like business administration is concerned with transactions and their effect on properties and property rights The properties of cities and the operations of city managers must be accounted for if the quality of the city administration is to be known Accounting can measure public administration as well as business administration

THE PROFESSION OF ACCOUNTANCY Just as a man may devote his life to law or to medicine, so he may devote it to accounting When he makes his life work the improvement of accounting service, he is truly a professional man Such identification of human interest with accounting is known as the profession of accountancy.

If the accountant serves as chief accountant or controller of a going business, he is sometimes said to be engaged in *private accounting*. In this case his services are rendered entirely to one business unit except insofar as he may belong to associations of accountants or controllers that seek to improve the practice of accountancy. There are a number of national organizations of private accountants that seek to raise the level of accounting service through periodic meetings and publications.

When an accountant sets up his own office and accepts clients, he is said to be engaged in *public accounting*. Because of the importance of the work performed by the public accountant and because of the confidential relation he bears to his clients, it has long been regarded desirable to have some means by which the business public can judge his ability. To accomplish this, laws providing for the examination and the certification of public accountants have been passed in all the states of the Union. In each state there is a board of examiners that commonly gives a public examination twice a year to those who comply with the requirements mentioned below. Those who make a satisfactory grade on these examinations and who have met specified requirements in relation to experience are granted a certificate that gives them a right to the title of *Certified Public Accountant*. The accountant usually indicates this title by writing after his name the letters *C.P.A.* The state laws prohibit any one from calling himself a certified public accountant unless he has passed the examination and has been in public accounting practice for the period of time prescribed by the state.

The qualifications required for the C.P.A. certificate differ in the various states. In most states the applicant must be a high-school graduate, or have equivalent education, and must have had three years' experience in accounting work. In New York, the leading C.P.A. state, the applicant must be a graduate of a collegiate school of business in addition to having the experience requirement. The nature of the experience differs among the states. Some states require that the experience all be acquired in the office of a public accountant, while other states accept accounting work in a private business in partial fulfillment. Reference must be made to the laws of each particular state for details.

PURPOSE OF ACCOUNTING The primary purpose of accounting is to provide information concerning property and the rights to property and to show how property and the rights to it have been affected by business operations.

The functions of accounting are

(1) To record analyze and classify financial activities

(2) To summarize the results of these activities for each business enterprize

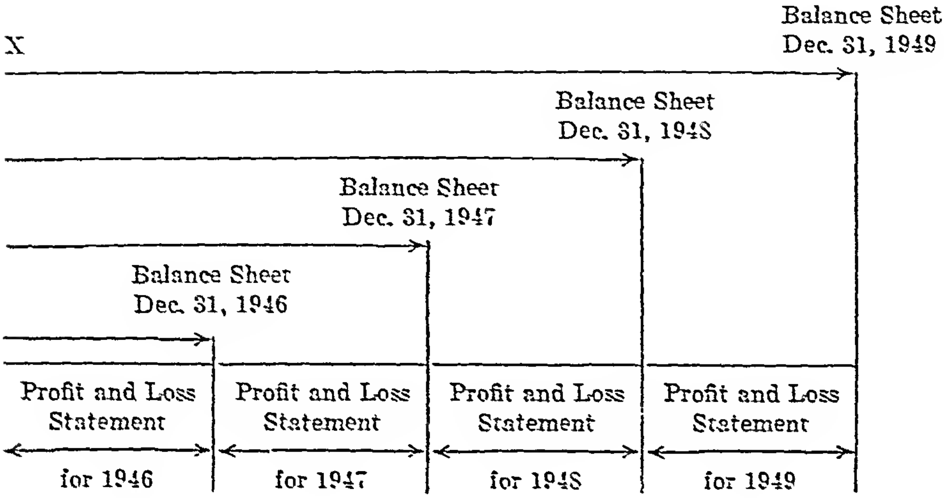
Recording reduces to writing the activities of a business In recording only the financial activities should be included, and their inclusion should be accomplished in the most effective manner Accounting gives consideration to that manner of recording which involves the least labor

Analysis and classification suggest orderly procedure Accounting seeks to arrange under predetermined classes the mass of events that occur daily in business In this way the records are more easily interpreted and understood Furthermore th records are justified only so far as they are useful to those who have need to use them Classification then should be based on the experience of those businessmen who throughout the years have had occasion to determine action or base policies on such information

The masses of data classified as mentioned above become more useful when summarized It is not the single business act but the sum of all the operations of a day a week a month or a year that has the greatest significance It is the total of many transactions properly classified that has the utility desired So accounting summarizes at intervals the operations and the effects of these operations on property and on rights to property Some summaries must be made frequently, others only occasionally For example it may be desirable to know daily the summary of transactions affecting cash while it may be necessary to know only annually the summary of transactions affecting buildings

ACCOUNTING STATEMENTS There are two principal accounting summaries the first lists the kinds and amounts of property together with the ownership rights in this property, the second reports the effects of the operations by the owners or their agents on the owners equity or right in this property The first of these summaries is known as the *balance sheet,* it shows the property of the business together with the rights of the *creditors* and of the proprietor in the property The second summary is known as the *profit and loss statement* it lists the income and the costs of operation for the period which result in an increase or a decrease in *proprietorship* The balance sheet gives a picture of financial condition at a given moment the profit and loss statement covers the period between two balance sheets.

From an accounting point of view, the life of any business enterprise is a succession of balance sheets, usually prepared annually and tied together by profit and loss statements, each covering one year. When statements are prepared annually, the profit and loss statement covers the year beginning with the previous balance sheet and ending with the date of the present balance sheet. If the life of a business enterprise is represented by a line starting at point X and moving toward the right, accounting statements may be diagrammed as follows:



PROPERTY AND PROPERTY RIGHTS The property owned by a business and used in the operation of that business is called *assets*. The right or interest of the proprietor in the assets of the business is called his *proprietorship*, *capital*, or *net worth*. If there are no claims against the assets, other than that of the proprietor, the relationship of the proprietor to the assets is expressed by the following equation:

ASSETS = PROPRIETORSHIP

For example, Frank Ford has $8,000 in cash that he decides to use in the operation of a grocery store. His assets and his proprietorship are shown by the equation:

CASH $8,000 = FRANK FORD $8,000

Ford pays $4,500 for merchandise and $2,000 for store equipment. These purchases decrease his asset cash $6,500 but give him two new assets, merchandise and store equipment. The equation that shows the assets and the rights to the assets is:

Assets		=	Proprietorship	
Cash	$1,500		Frank Ford	$8,000
Merchandise	4,500			
Store Equipment	2,000			
	$8,000			$8,000

The nature of Ford's property has changed as a result of his purchases, for now he has only $1,500 in cash, but he has merchandise and store equipment valued at $6,500. The two transactions given above change the nature of the assets but do not change the total value of the assets.

Many businessmen find that, in order to conduct their businesses satisfactorily, they need property in addition to that provided by their own proprietorship. They can obtain the use of additional property in either of two ways. (1) they can borrow money and use it to purchase assets or (2) they can purchase property on *account*, that is, they can procure the property by giving a promise to pay at some future date.

Those from whom businessmen borrow or purchase on account are known as *creditors*. The creditors of a business have a claim on the property of that business until the proprietor pays them in accordance with their agreement. The rights of the creditors in the assets of a business are known as the *liabilities* of the business.

If Ford, whose financial condition has just been illustrated, purchases $1,500 of merchandise from Carl Hay and promises to pay for it later, he increases the total of his assets $1,500 by the acquisition of the merchandise. At the same time he grants a claim against his assets, for Carl Hay now has a right to the amount of $1,500 in these assets; consequently, a liability of $1,500 is created by this purchase. These facts are shown by the following equation:

Assets		=	Liabilities		+	Proprietorship	
Cash	$1,500		Carl Hay	$1,500		Frank Ford	$8,000
Merchandise	6,000						
Store Equipment	2,000						
	$9,500	=		$1,500	+		$8,000

As he would use all his cash if he paid Hay for the total amount of the purchase, Ford decides to pay only $500 in cash on account. The following equation shows this $500 decrease in the assets and the liabilities:

ASSETS		=	LIABILITIES		+	PROPRIETORSHIP	
Cash...........	$1,000		Carl Hay.....	$1,000		Frank Ford...	$8,000
Merchandise....	6,000						
Store Equipment	2,000						
	$9,000	=		$1,000	+		$8,000

CHANGES IN PROPRIETORSHIP AS A RESULT OF BUSINESS OPERATIONS

The primary objective of the proprietor of a business is to increase his proprietorship by earning a profit. This may be accomplished by selling commodities or services at a price above cost and by keeping the expenses of operating the business at an amount that is less than the difference between the sales price and the cost. For instance, Ford sells for $8,000 the merchandise that cost him $6,000. If his operating expenses are less than $2,000, which is the *margin* on sales, he has earned a profit. If his expenses exceed $2,000, he has incurred a loss.

If Ford sells for $8,000 the merchandise that cost him $6,000 and has operating expenses amounting to $1,600, he has realized a profit of $400. This profit is shown in the equation by an increase of $400 in his assets and an increase of the same amount in his proprietorship. His liabilities are not affected by these transactions.

After these transactions have been completed, Ford no longer has merchandise valued at $6,000. Instead, he has additional cash of $6,400, the amount he received for the merchandise ($8,000) less his operating expenses that he paid for in cash ($1,600). The total value of his property is now $9,400, which represents an increase of $400. Since the amount of his liability remains $1,000, his proprietorship is represented by the difference between the assets and the liabilities, or $8,400, which is an increase of $400. The equation is now as follows:

ASSETS		=	LIABILITIES		+	PROPRIETORSHIP	
Cash...........	$7,400		Carl Hay.....	$1,000		Frank Ford....	$8,400
Store Equipment	2,000						
	$9,400	=		$1,000	+		$8,400

In the preceding example, if Ford had been unable to keep his operating expenses low enough to be absorbed by the margin between the cost of the merchandise and the sales price, he would have incurred a loss. For instance, if Ford had paid out in cash operating costs amounting to $2,500, both his assets and his proprietorship would have been reduced $500. In other words, the expenses of operating the business would have exhausted the $2,000 margin and Ford's cash would have been $1,000 − $2,500 + $8,000, or $6,500, an increase of $5,500. His merchandise, however, would have decreased $6,000.

Since his proprietorship and his liabilities would have equaled his total assets his financial condition expressed in equation form would have been as follows

ASSETS		=	LIABILITIES		+	PROPRIETORSHIP	
Cash	$6 500		Carl Hay	$1 000		Frank Ford	$7 500
Store Equipment	2 000						
	$8 500	=		$1 000	+		$7 500

It can be seen that if a businessman is to make a profit he must keep the operating expenses of his business down to an amount that is lower than the margin between the cost of the merchandise and the sales price

NEED FOR BUSINESS RECORDS If the proprietor is to conduct his business in such a manner that his proprietorship will be increased and if he is to make satisfactory decisions with regard to future operations he must know the effect of his business transactions on his assets liabilities and proprietorship

If he is considering the desirability of employing additional sales clerks he should consider the results obtained from the employment of his present clerks and should try to judge from this experience what probable results will be obtained from employing additional clerks If he is considering the purchase of additional equipment or additional store space he should give careful attention to the results obtained from the present equipment and space If he thinks the additional clerks and store facilities will increase his sales and his proprietorship he may decide to procure them

If the proprietor is contemplating the purchase of additional property by increasing his liabilities he must consider (1) whether his past experience indicates that this property can be used profitably, that is whether it can be used so that it will result in an increase in proprietorship and (2) whether he will be able to pay his creditors in *accordance with the terms under which he can obtain the property* from them Creditors will usually accept only cash in payment of their claims If the proprietor invests too much of his property in land buildings equipment and other assets of a similar nature he may be unable to obtain the cash needed to pay his creditors at the proper time He must have information that will show him the amount of his liabilities and he must know whether he will have the cash to pay them when they are due

There are persons other than the proprietor who are interested in the operations of the business and who are entitled to information

about these operations. If the proprietor wishes to borrow money from a bank, the officers of the bank may require him to give information that will enable them to judge his ability to repay the loan. This information will probably include the amounts and the nature of his assets and liabilities, the amounts of the profits earned in previous years, and a detailed explanation of how the profits were earned. If the profits were earned in the regular operation of the business, a much better condition might be indicated than if they were unusual gains resulting from transactions that might not occur again.

Creditors may also request similar information before they sell merchandise on account to a business. The government may require a statement showing the income of the business so that the income tax can be ascertained and assessed.

Obviously, in controlling his business, the proprietor needs all the information that might be desired by anyone else; hence accounting records that meet the needs of the proprietor will ordinarily meet the needs of all others. The proprietor, however, frequently needs information about many details in which outsiders are not interested. Statistics showing the amounts of different expenses, the cost of selling certain kinds of merchandise, the ratio of returned goods to goods sold, and many similar types of information are important to the proprietor but are ordinarily not needed by others. In the following chapters attention will be given primarily to the needs of the proprietor, but the needs of others will not be ignored.

RECORDS FOR NONCOMMERCIAL ENTERPRISES

Records are often needed by those not engaged in business operations in the technical sense. For example, records are used by professional men and by those who have retired from active participation in business. The physician, the lawyer, and the accountant must maintain records to show at least (1) the amounts owed them by their clients so that they can take the necessary steps to procure collection and (2) the amount of income earned so that they can make their income tax returns to the government. Governmental units, such as cities and states, need information concerning past operations in planning their future activities. The same is true of lodges, clubs, and churches. Every individual or organization that uses property in the conduct of operations should maintain a record of this property and the effect of operations on the property. Emphasis will be placed primarily on the records needed by those carrying on commercial operations for profit, but much of this discussion will be applicable to the needs of all those requiring the services of accounting records.

SPECIALIZED ACCOUNTING FIELDS The accounting that has been referred to in previous pages is sometimes called "general" accounting It has to do with the recording of transactions for a business or other economic unit and the periodic preparation of statements from these records It provides accounting information for management for creditors for the government and for any others who have use for such information

In addition to general accounting a number of specialized accounting fields have developed especially during the past fifty years Among these specialized fields attention may be given briefly to the following

Auditing and investigations represent a field of accounting activity that reviews independently the general accounting Auditing is usually done by an independent accountant who examines records and reports and issues a statement of opinion regarding their accuracy, together with a report containing confidential advice to the management

Cost accounting emphasizes accounting for costs particularly manufacturing costs It stresses costs of products and processes rather than the proprietorship of the enterprise as a whole

Income tax accounting has been of great importance since the adoption of the Sixteenth Amendment to the Constitution in 1913 It involves a knowledge of the latest decisions of income tax authorities and seeks to determine the correct amount of tax liability based on income As the amount to be raised by income taxes increases the importance of this field of accounting grows

Accounting systems stress the construction of accounting records for any particular enterprise or group of similar enterprises It seeks to make more efficient the mechanisms of recording and reporting in accounting for a specific business

Budgetary accounting presents in account form the transactions planned for the coming period and summarizes these transactions in accounting statements It deals with contemplated rather than actual transactions

Governmental accounting specializes in the transactions of political units such as states and municipalities It seeks to provide useful accounting information with regard to the business aspect of public administration

QUESTIONS

1. Name five different kinds of assets that each of the following uses: (a) a bank, (b) an airplane manufacturer, (c) a university student, (d) the head of a household, (e) a city hospital.

   (1) Which of these users of property requires the greatest amount?
   (2) Which requires the least?

2. Edward Brown purchased a house for $8,000. (a) Under what conditions would this transaction not affect the amount of his property or of his proprietorship? (b) Under what condition would this transaction affect the amount of his property without affecting the amount of his proprietorship? (c) Could it affect his proprietorship?

3. Before Edward Brown moved into the house that he had purchased, he received an offer of $10,000 in cash for it. He accepted the offer. How did this transaction affect the amount of (a) his property? (b) his proprietorship?

4. Stanley Aircraft Company is a manufacturer of airplanes. (a) Describe three transactions that will not affect the total amount of its property or of its proprietorship. (b) Describe three transactions that will affect the amount of its property but not the amount of its proprietorship. (c) Describe three transactions that will affect the amount of its property and of its proprietorship.

5. "Transactions are becoming more complicated because of sales and payroll taxes." Do you agree? Explain.

6. "The life of an economic unit is determined by its business transactions; every living economic unit is a party to transactions." Is this true? Explain.

7. Carl Snow's proprietorship on May 1 is shown by the first equation given below. On that day he performed the transactions indicated by the additions to and the subtractions from the assets, the liabilities, and the proprietorship. State the transaction that gave rise to each equation.

	Cash	+	Merchandise	+	Store Fixtures	=	Liabilities	+	Proprietorship
	$3,000	+	$4,000	+	$1,500	=	$1,500	+	$7,000
(a)	+200				−200				
	$3,200	+	$4,000	+	$1,300	=	$1,500	+	$7,000
(b)			+1,000				+1,000		
	$3,200	+	$5,000	+	$1,300	=	$2,500	+	$7,000

	Cash	+ Merchandise	+ Store Fixtures	= Liabilities	+ Proprietorship
	$3,200	$5,000	$1,300	$2,500	$7,000
(c)	+1,200 −100	−800			+300
	$4,300	$4,200	$1,300	$2,500	$7,300
(d)	−1,000			−1,000	
	$3,300	$4,200	$1,300	$1,500	$7,300
(e)	+600 −200	−500			−100
	$3,700	$3,700	$1,300	$1,500	$7,200
(f)	−100				−100
	$3,600	$3,700	$1,300	$1,500	$7,100

8. The proprietorship of the city of Early on May 1 is shown by the first equation given below. On that day, the transactions indicated by the additions to and subtractions from the assets, the liabilities, and the proprietorship were performed. State the transaction that gave rise to each equation.

	Cash	+ Taxes Receivable	+ Bldg	+ Land	+ Equip	= Liab	+ Prop
	$12,000	$9,000	$20,000	$7,500	$11,000	$9,500	$50,000
(a)	+5,000	000					
	$17,000	$4,000	$20,000	$7,500	$11,000	$9,500	$50,000
(b)	+3,000				−3,000		
	$20,000	$4,000	$20,000	$7,500	$8,000	$9,500	$50,000
(c)	−6,500					−6,500	
	$13,500	$4,000	$20,000	$7,500	$8,000	$3,000	$50,000
(d)	+13,000		−10,000	−1,000			+2,000
	$26,500	$4,000	$10,000	$6,500	$8,000	$3,000	$52,000
(e)		+7,000					+7,000
	$26,500	$11,000	$10,000	$6,500	$8,000	$3,000	$59,000
(f)	−11,000						−11,000
	$15,500	$11,000	$10,000	$6,500	$8,000	$3,000	$48,000

PROBLEMS

1. Matthew Moore, a student, sold magazine subscriptions and Christmas cards during the summer vacation. Record the following in tabular form similar to that used in Question 7 in this chapter. The headings to be used are:

ASSETS	=	LIABILITIES	+	PROPRIETORSHIP
Cash+Equip.+Auto	=	Century Publ.	+	Matthew Moore

(a) Net worth at the beginning of summer consists of cash, $175; equipment (typewriter and desk), $100.
(b) Received $600 cash in subscriptions, of which $450 is payable to the Century Publishing Company.
(c) Received $1,000 cash in commissions on Christmas card sales.
(d) Paid amount due Century Publishing Company in full.
(e) Purchased for cash used car, $600.
(f) Paid cash for room and board and other living expenses for the summer, $340.
(g) Paid cash for miscellaneous expenses, $125.

2. O. C. Irwin prior to his father's death had accumulated no assets. Record the following transactions for six months in tabular form similar to that used in Question 7 in this chapter. The headings to be used are:

ASSETS	=	LIABILITIES	+	PROPRIETORSHIP
Cash+Securities+Auto+Home	=	N. A. Mtge. Co.	+	O. C. Irwin

(a) Inherited $15,000 in cash.
(b) Purchased securities for cash, $7,500.
(c) Purchased a home for $15,000, giving $5,000 cash and a mortgage payable to the N. A. Mortgage Company for $10,000.
(d) Sold securities that cost $1,000 for $1,500 in cash.
(e) Purchased an automobile for cash, $2,800.
(f) Received cash for salary, $3,600 (increase proprietorship).
(g) Paid cash to reduce the mortgage by $500 and for interest expense, $300 (reduce proprietorship).
(h) Paid cash for living expenses, $3,000.
(i) Received cash for dividend income on securities, $200.

Mr. Irwin's proprietorship during the six months increased $1,000 because of:

(1) Excess of salary over living expenses and interest on the mortgage on his home.
(2) Profit on sale of securities.
(3) Income received as dividends on securities.

Determine the individual amounts that go to make up the $1,000 increase.

CHAPTER II

THE BALANCE SHEET

PURPOSE OF THE BALANCE SHEET For the intelligent conduct of business activity, the proprietor must know at appropriate intervals the financial condition of his enterprise and the changes in the financial condition that have taken place. It would be virtually impossible for him to obtain such information from a direct inspection of the accounting records. Since the accounting records must show the effect of each business transaction, they contain too much detail for a clear understanding of financial condition.

The hundreds or thousands of business transactions performed by the business are summarized, and the effect of all of them is shown as a total. These periodic summaries prepared annually, quarterly, or monthly provide the proprietor and others with information about the financial condition of the business.

These periodic statements showing financial position were briefly described in the previous chapter. We shall now study the balance sheet, which shows the amounts and the nature of the proprietor's assets, liabilities, and proprietorship.

FORM OF THE BALANCE SHEET A balance sheet is merely an elaboration of the equation:

ASSETS = LIABILITIES + PROPRIETORSHIP

The relation between this equation and the balance sheet can be shown by a simple illustration. If Ray Dunn, a retail merchant, has assets worth $15,000 and liabilities amounting to $5,000, his financial condition may be expressed by the equation:

ASSETS	=	LIABILITIES	+	PROPRIETORSHIP
$15,000	=	$5,000	+	$10,000

In preparing a balance sheet, it is customary to omit the equation sign and to show the assets at the left of double vertical lines and the rights of the creditors and the proprietor at the right of the lines. The balance sheet of Ray Dunn is, then, as follows:

Assets	$15,000	Liabilities	$ 5,000
		Proprietorship	10,000

Such a statement would not satisfy the needs of Dunn or others entitled to information about his business, for it does not show the

nature of his assets. It does not show whether he has sufficient cash to meet his needs and his obligations or sufficient merchandise to satisfy the wants of his customers. Nor does it list the value of the store and delivery equipment he uses in rendering service to his customers. It does not indicate whether he owns the building in which his business is conducted or how much of his capital is invested in his various assets. His balance sheet should show the amount he has invested in each kind of asset. It should also show the nature of his obligations.

An examination shows that the assets of Dunn's business consist of the following: cash, $1,300; merchandise inventory, $4,000; store equipment, $2,000, office equipment, $1,000; building, $4,000; land, $2,000; store supplies, $500; and office supplies, $200. He owes $3,000 on his note at the bank and he owes various suppliers $2,000 for goods he has purchased. His financial condition is more easily seen if these items are set up in vertical columns as illustrated below:

Assets		Liabilities	
Cash	−$500	Notes Payable	+$1,000
Delivery Equipment	+1,500		

The balance sheet of Dunn now appears as follows:

Assets		Liabilities	
Cash	$ 800	Notes Payable	$ 4,000
Merchandise Inventory	4,000	Accounts Payable	2,500
Delivery Equipment	1,500		
Store Equipment	2,500	Total Liabilities	$ 6,500
Office Equipment	1,000		
Building	4,000	Proprietorship	
Land	2,000	Ray Dunn, Capital	10,000
Store Supplies	500		
Office Supplies	200		
Total Assets	$16,500	Total Liabilities and Proprietorship	$16,500

CLASSIFICATION AND DEFINITION OF BALANCE SHEET ASSETS In dealing with a large number of asset items on a balance sheet, it is helpful to have them grouped in significant classes. The classification commonly used for assets consists of (1) current assets, (2) fixed assets, and (3) deferred charges to expense. Balance sheet assets will be described briefly below under these three classifications.

1. Current Assets. Assets in the form of cash or assets that may reasonably be expected to be converted into cash in the near future by the regular operations of the business are called *current assets.* These assets are listed in the order of their liquidity, that is, in the order in which they will probably be converted into cash. Current assets most commonly include Cash, Notes Receivable, Accounts Receivable, and Merchandise Inventory.

Cash. Cash includes currency, checks, bank drafts, and money orders. Any medium of exchange that a bank will accept at face value on deposit may usually be shown on the balance sheet as cash. The cash that a business uses in its operations may be partly in its cash drawer and partly on deposit at the bank.

Notes Receivable. A note receivable is a promissory note received from a debtor. A promissory note is a written promise to pay a certain sum in money at a definite time to the order of a specified person or to the bearer. This note may be transferred by the business to some other person, or it may be sold to the bank for cash. It represents a type of asset very readily convertible into cash.

Accounts Receivable An account receivable is a claim, not based on a note against a certain person or other concern Usually an account receivable arises from the sale of merchandise on account The granting of credit for goods sold results, not in an increase in cash, but in an asset called *Accounts Receivable on the seller's accounting records*

Merchandise Inventory Merchandise consists of goods purchased or produced for sale Food offered for sale in a grocery store and clothing produced for sale in a clothing factory are examples of merchandise The merchandise on hand at any specific time is referred to as the *merchandise inventory* The inventory is usually determined by a physical count of the merchandise on hand Such a count of merchandise is known as a *physical inventory*

The value of the inventory is ascertained by valuing each item at the cost price or the cost to replace, whichever is the lower. For example 100 units of merchandise that had cost \$5 50 a unit are on hand at the end of a fiscal period The same merchandise can now be purchased for \$4 75 a unit The inventory should show this item at \$475, the present market price which is lower than the original cost On the other hand, if 100 units of another item that cost \$5 50 a unit are on hand and the market price has gone up to \$6 a unit, that item should be valued at \$550, the original cost price, which is lower than the present market price These items set up in tabular form, are:

COST MARKET INVENTORY

Store Equipment. Store equipment includes such permanent assets as counters, showcases, window decorations, and any other items of furniture used directly in selling the goods. Like delivery equipment, this equipment may be sold when it no longer serves the purpose of the business.

Office Equipment. Office equipment includes such assets as desks, typewriters, adding machines, and other items not used directly in selling the goods but needed for the general operation of the business.

Building. A building owned by a business may be used as a factory, a warehouse, a store, or an office. When a building is not owned by the proprietor, it is rented or leased from the owner. In that case the value of the building does not appear on the balance sheet of the business because the building is not property of the enterprise.

Land. The value of the land on which the building is located is usually shown as a separate item on the balance sheet. Although a building may no longer be valuable because of its age or its condition, the land still remains. Because of this difference, it is desirable to show the land value separately.

3. Deferred Charges to Expense. Assets that are purchased for use in the business and that will be consumed in the near future are called *deferred charges to expense.* For the sake of brevity, they are frequently referred to as *deferred charges.*

Store Supplies. Store supplies include paper, twine, and similar items used in selling. They are consumed in the operation of the business and are considered as assets until they are consumed. The amount of such supplies on hand must be ascertained at the time each balance sheet is prepared.

Office Supplies. Office supplies include stationery, stamps, and similar items not used in selling but needed for the general operation of the business. Like store supplies, the amount on hand must be ascertained at the time that each balance sheet is prepared.

Prepaid Insurance. Insurance premiums are paid in advance and may cover from one to five years. The greater part of the premium, then, for some considerable time is an asset. Included are such types of insurance as fire, theft, compensation, and liability insurance.

The specific asset items listed and described above under the threefold classification constitute those most frequently found on balance sheets. In addition to these there are others, such as interest receivable on notes, investments, machinery, tools, goodwill, and patents. An explanation of such assets will be given in later chapters.

is to be paid rather than to be renewed should be moved into the current liabilities group. In the interest of complete information, the date of the maturity of the specific obligation should be shown on the balance sheet.

Mortgage Payable. A mortgage payable represents a debt owed by a business for which the creditor possesses a secured claim through a mortgage on some particular asset. If the amount owed is not paid by the debtor, this secured claim gives the creditor the right to bring court action that may result in the sale of the asset to satisfy the claim.

Bonds Payable. Long-term obligations of corporations are commonly evidenced by formal papers known as bonds. Bonds may be secured by mortgages on fixed assets as described in the previous paragraph or may be based on the general credit standing of the corporation. In any case, they represent a debt to be paid more than one year hence and are therefore included under fixed liabilities.

3. Deferred Credits to Income. If a business is paid in advance for a service, the unearned portion of the payment is a deferred credit to income. For example, when an insurance company receives in one fiscal period a payment for insurance that extends over a future fiscal period, the unearned portion of the premium is a deferred credit to income that may be listed on the balance sheet under the title "Unearned Premium Income."

DEFINITION AND ILLUSTRATION OF BALANCE SHEET PROPRIETORSHIP

Proprietorship is the interest of the owner in the assets of the business. If a business has no liabilities, the proprietorship is equal to the total of the assets; otherwise, it is the difference between the assets and the liabilities.

Proprietorship, capital, and *net worth* are synonymous terms. All of these terms are used by businessmen and accountants. The first two are, perhaps, more accurate terms than the third, since the term "net worth" may seem to imply that accounting values are all based on present market values. As was stated in Chapter I, accounting values are determined by the prices agreed upon in the recorded transactions. These may be above or below the present market prices.

Sometimes the proprietorship is vested in two or more persons. Then the business is known as a *partnership* or a *corporation* according to the methods of ownership. The capital interests of partners in a partnership are shown separately on the balance sheet. The sum of the interests of the various partners represents the proprietorship of the partnership. The interest of each stockholder in a corporation is not

shown on the balance sheet. The interest of the stockholders as a group is shown in two amounts, the original investment and the accumulated earnings or losses of the corporation since the beginning of operations.

The manner of reporting the different types of ownership interest on the balance sheet is illustrated below. These illustrations indicate the personal emphasis in the sole proprietorship and the partnership and the impersonal emphasis in the corporation.

Sole Proprietorship	
W. L Paul, Capital	$ 6,500
Partnership	
Garner Beckett, Capital	$ 12,300
William Clary, Capital	13,100
Total Capital	$ 25,400
Corporation	
Capital Stock	$100,000
Surplus	35,100
Total Capital	$135,100

In the sole proprietorship and the partnership the interests of the owners are *designated by the names of the owners.* In the *corporation* the stockholders' interests are represented by the sum of the *capital stock* and the *surplus* items. The nature of partnerships and corporations will be considered in later chapters.

It is helpful to report the changes that have occurred in a sole proprietorship since the previous balance sheet was prepared. This practice gives a more complete report of financial condition by showing the additions through profits and additional investments and the subtractions through losses or withdrawals. This more complete statement of proprietorship is shown below:

Robert Lee, Capital, January 2, 1948		$10,000
Additional Investment, July 1, 1948		2,000
Total Investment		$12,000
Net Profit in 1948	$4,000	
Less Withdrawals in 1948	2,400	1,600
Robert Lee, Capital, December 31, 1948		$13,600

If Robert Lee had withdrawn $4,800 in 1948, the difference between $4,800 and $4,000 would have been subtracted from his total invest-

ment, leaving only $11,200 as his capital on December 31. This condition is shown below:

Robert Lee, Capital, January 2, 1948		$10,000
Additional Investment, July 1, 1948		2,000
Total Investment		$12,000
Net Profit in 1948	$4,000	
Less Withdrawals in 1948	4,800	800
Robert Lee, Capital, December 31, 1948		$11,200

It is important for the proprietor to know whether his withdrawals from the business have exceeded his earnings. If such excess withdrawals occurred sufficiently often, his proprietorship would eventually disappear.

If Robert Lee had suffered a loss in 1948, the amount of the loss would be added to the withdrawals and the sum of these items would be subtracted from his total investment.

HEADING OF THE BALANCE SHEET A balance sheet is prepared to show the financial condition of the business on a specific date. The name of the business for which the balance sheet is prepared and the day for which the report shows the financial condition are customarily used in the heading or title. The date used is that of the business day that has just closed. A balance sheet prepared at the close of the calendar year 1948 would be dated December 31, 1948. Such a heading is usually written in three lines. The first contains the name of the business; the second, the name of the statement, "Balance Sheet"; and the third, the date of the statement.

STANDARD FORMS OF THE BALANCE SHEET The balance sheet of James Hiatt, prepared in the form customarily used, is shown on pages 28 and 29. This form is known as the *account form*. Sometimes the balance sheet is prepared in a form known as the *report form*. This form is illustrated in Chapter V.

In the account form the accounting equation is set up as follows:

ASSETS = LIABILITIES + PROPRIETORSHIP

Balance Sheet

	______		______
	______		______
Assets	______	Liabilities	______
	______		$ 40,000
		Proprietorship	60,000
	$100,000		$100,000

ORDER OF PRESENTATION OF BALANCE SHEET ITEMS

The order of presentation of assets and liabilities on the balance sheet varies. The prevailing practice is to arrange the items in *order from* the most current to the most fixed. Current assets are followed by fixed assets in the assets section of the balance sheet, and current liabilities are followed by fixed liabilities in the liabilities section. Within each of these classifications, the order of items is from the most current to the least current.

The arrangement in which the current assets are listed first in the assets section and the current liabilities are given first in the liabilities section is desirable since it shows clearly the liquidity of the assets and their availability in meeting obligations. The creditors of a business look first to the ability of the business to meet its obligations. Furthermore this order of presentation shows the items in relation to their use and indicates changes in the business. *Current assets and current* liabilities are both subject to significant changes and are therefore of primary interest.

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Fixed assets and fixed liabilities are important balance sheet items, but they change much less than *current assets* and liabilities. Transactions showing purchase or retirement of fixed assets and the depreciation charges affecting them are only occasional entries.

Deferred charges usually represent a very small percentage of the total assets and therefore may reasonably be shown last in the assets classification. For the same reason deferred credits are shown last in the liabilities classification.

ciation, and maintenance, shows this total to be considerably under the rent he has been paying. He uses $10,000 of his own cash and borrows $5,000 on a five-year note to pay for the property. It is estimated that $3,000 of the purchase price applies to the land, leaving $12,000 as the cost of the building.

At the end of the second year Mr. Calvin prepares a balance sheet and a profit and loss statement for Mr. Hiatt. The balance sheet is illustrated on pages 28 and 29 and is analyzed below; the profit and loss statement is described at the end of Chapter III.

BALANCE SHEET ILLUSTRATED AND ANALYZED

The balance sheet of James Hiatt is known as a *classified balance sheet,* since assets and liabilities are listed under the headings *current, fixed,* and *deferred.* It is also called the account form, since assets are on the left and liabilities and proprietorship are on the right. The proprietorship section shows income and withdrawals since the last balance sheet.

The analysis of a balance sheet provides much useful information, primarily by calculating the ratios existing between the different classes of assets and liabilities. For example, the current ratio (current assets ÷ current liabilities) is one very commonly quoted and is one of the most useful. The balance sheet ratios providing such useful information are:

(1) Current ratio.
(2) Fixed ratio.
(3) Owner's equity ratio.
(4) Creditor's equity ratio.
(5) Earnings on capital ratio.

The current ratio for Hiatt Home Appliances is current assets, $29,500, divided by current liabilities, $15,000, or 1.97 to 1. Current liabilities commonly call for payment in cash, most of which is realized from current assets, such as receivables and merchandise. A margin of safety should be provided for any shrinkage that might take place in the conversion of such assets into cash. The ratio of 1.97 to 1 would permit an almost 50 per cent shrinkage in such a conversion into cash.

The difference between current assets and current liabilities is called *working capital.* Mr. Hiatt's working capital is $29,500 — $15,000, or $14,500. Working capital shows in dollars the amount available for current use in the operation of a business.

The fixed ratio for Mr. Hiatt is fixed assets, $48,000, divided by fixed liabilities, $5,000, or 9.6 to 1. While this figure has some general significance, it is not so important in Mr. Hiatt's business, since his

Appliances
Hiatt
31, 1949

Liabilities			
Current Liabilities:			
Notes Payable		1,000 00	
Accounts Payable		13,600 00	
Wages Payable		400 00	
Total Current Liabilities			15,000 00
Fixed Liabilities:			
Mortgage Payable (Due 1954)			5,000 00
Total Liabilities			20,000 00
Proprietorship			
James Hiatt, Capital, January 1, 1949		55,000 00	
Net Profit for the Year	10,000 00		
Less Withdrawals	5,000 00	5,000 00	
James Hiatt, Capital, December 31, 1949			60,000 00
Total Liabilities and Proprietorship			80,000 00

Account Form

Mr. Hiatt's services are worth $4,500 a year, the earning on capital would be net profit, $10,000, less $4,500, or $5,500, divided by beginning capital, $55,000, or 10 per cent. If the proprietor's services were ignored, the earning on capital would be $10,000 divided by $55,000, or 18 per cent.

In a later chapter the method of analyzing and interpreting the items on the balance sheet will be discussed in detail. The present purpose is only to emphasize the importance of such an interpretation and to show why balance sheet items are classified into current, fixed, and deferred groups and why the order of groups of items is so arranged.

owned by a grocery store; stamps in a lawyer's office; an automobile used by a grocery store to deliver merchandise; automobiles in the show-rooms of an automobile sales company?

4. The following balance sheet properly differs from the one on pages 28 and 29 in that it uses dollar signs because it is not written on ruled paper. It incorrectly differs from the illustration in nine other details. Make a list of these errors.

BALANCE SHEET

A. B. CASE

ASSETS		
Current Assets:		
Cash	$ 500	
Accounts Receivable	4,000	
Building	3,600	
Purchases	3,000	
Total Current Assets		$11,000
Fixed Assets:		
Furniture and Fixtures	$1,500	
Land	2,000	
Total Fixed Assets		3,500
Total Current and Fixed Assets		$14,500
Deferred Charges:		
Store Supplies	$ 150	
Office Supplies	300	
Total Deferred Charges		450
Total Assets		$14,950

LIABILITIES		
Current Liabilities:		
Notes Payable	$1,000	
Accounts Payable	3,500	
Mortgage Payable	3,000	
Total Current Liab.		$ 7,500
PROPRIETORSHIP		
A. B. Case, Capital	$6,000	
Sales	2,450	
Total Proprietorship		7,450
Total Liabilities & Prop.		$14,950

5. The manager of the Ford Shoe Company wishes to borrow from the bank $1,500 with which to buy additional store fixtures. He presents to the banker a balance sheet showing that the current assets of the company are: cash, $4,000; accounts receivable, $10,000; merchandise inventory, $10,500. The current liabilities consist of accounts payable of $6,500. The banker contends that the balance sheet does not show a satisfactory condition, because the business must always carry in stock about $10,000 worth of merchandise in order to take care of its customers, and because it usually has accounts receivable of about $10,000. Under these circumstances the banker believes that the business may not be able to pay all its accounts payable. Considering only the preceding facts, do you believe that the company is entitled to a loan?

6 Some bankers require that businesses borrowing money from them have current assets worth at least twice as much as the current liabilities Suggest reasons for this requirement

7 John Anderson s proprietorship increased $5,000 during the past fiscal year What was the profit or loss if

(a) No additional investments or withdrawals were made?
(b) Only additional investments of $1 000 were made?
(c) Only additional investments of $2 000 were made?
(d) Only withdrawals of $1 000 were made?
(e) Additional investments of $2 000 and withdrawals of $1,000 were made?
(f) Capital additions of $2 000 and withdrawals of $4 000 were made?

8 (a) Could the government of the state of Ohio have a balance sheet? (b) If it could which of the following items would be reported on the balance sheet school buildings cash received from taxpayers, furniture in the governor s office state highways forests and waterfalls belonging to the state accounts taxes receivable (c) How would such items be classified on the balance sheet?

9 The following items are taken from the balance sheet of Robert Baird

Accounts Payable	$ 3 000
Accounts Receivable	3 000
Cash	1 000
Deferred Charges	2 000
Merchandise Inventory	8 000
Mortgage Payable	3 000
Notes Payable	1 000
Office Equipment	2 000
Store Equipment	4 000
Robert Baird Capital	13,000

Calculate the following (a) fixed asset ratio (ratio of fixed assets to fixed liabilities), (b) current ratio (c) working capital, (d) creditors' equity, (e) owner s equity

10 Which of the following questions may be answered "yes", which, "no"?

(a) Does the current ratio involve the same balance sheet figures as the working capital?
(b) Is the current ratio the difference between current assets and working capital?
(c) Is the creditors equity the difference between total assets and total liabilities?
(d) Is the ratio of proprietorship to total assets the current ratio?
(e) Does the ratio of fixed assets to fixed liabilities show the mortgage creditor s security?

PROBLEMS

1. Show, by the use of simple balance sheets without headings or classifications of assets and liabilities (similar to those used in Question 2 of this chapter), the effect of the following transactions. Prepare a new balance sheet after each transaction.

(a) H. A. Miller had investments as follows: Cash, $5,000; Building, $20,000.
(b) Sold the building for $19,000 cash.
(c) Purchased an apartment house for $58,000, giving $22,000 cash and a mortgage payable for the balance.
(d) Collected cash for rents, $6,000.
(e) Paid cash for operating expenses, $2,500, and to reduce the mortgage, $1,500.

2. On December 31, 1949, the end of one year, the assets and the liabilities of Robert Risk are as follows:

Accounts Payable	$ 6,000
Accounts Receivable	20,000
Building	18,000
Cash	5,000
Land	4,500
Merchandise Inventory	7,000
Mortgage Payable	4,000
Notes Payable	2,000
Prepaid Insurance	1,500
Store Equipment	3,500
Store Supplies	500

At the beginning of the fiscal period on January 1, Robert Risk's capital had been $45,000. He made withdrawals of $1,000 each month. The business showed a net income for the year of $15,000.

Instructions: (1) Prepare a balance sheet in account form showing Robert Risk's financial condition on December 31, 1949, in accordance with the illustration on pages 28 and 29.

(2) Compute the following:
(a) Current ratio.
(b) Fixed ratio.
(c) Owner's equity.
(d) Creditors' equity.
(e) Earning on capital (assume Mr. Risk's services are worth $12,000 a year).

(3) What is the working capital?

3. Ben Gray invested the following assets in a retail camera shop: cash, $10,000; merchandise inventory, $4,000. He planned to open the store on August 1, 1949, but prior to that time the following transactions took place:

(a) Purchased a building for $20,000, paying $5,000 in cash and giving a mortgage for the balance.

CHAPTER III

THE PROFIT AND LOSS STATEMENT

PURPOSE OF THE PROFIT AND LOSS STATEMENT

The proprietor of a business hopes to operate in such a way that he will increase his proprietorship. His accounting records should provide the information that will aid him in accomplishing this purpose. The amount of profit or loss incurred during a given period is the most important single fact of the period.

Each balance sheet shows the proprietor the amount of his proprietorship at the date of the balance sheet. By comparing the amount of his proprietorship as shown by balance sheets prepared on successive dates, he can ascertain whether his proprietorship is increasing or decreasing, as well as the amount of the increase or the decrease; but he cannot determine the cause of the increase or the decrease.

The balance sheet of James Hiatt, illustrated on pages 28 and 29, showed his proprietorship on December 31, 1949, to be $60,000. One year before, his balance sheet showed his proprietorship to be $55,000. His profit for the year was $10,000 but he withdrew $5,000. The net increase in proprietorship was therefore $5,000 during the year. If he had withdrawn $12,000 and had made the same net profit, his proprietorship would have been decreased $2,000. The amount of profit measures the increase in proprietorship unless there have been withdrawals or additional investments during the period.

The proprietor needs to know at frequent intervals the amount and the causes of his profit or loss in order that he may plan his future operations so as to increase his profit or to eliminate his loss. In a mercantile business, profit or loss results from the buying and selling of commodities. The proprietor needs a report showing the amount of his sales, the cost of procuring and selling the goods, and the difference, which is the profit or the loss. The statement that gives this information is known as the *profit and loss statement*. Other names given to this statement include *income statement, operating statement, income account*, and *income summary*.

The profit and loss statement is prepared at the same time as the balance sheet and shows the results of operation for the period since the last balance sheet. The period covered by a profit and loss statement is known as a *fiscal period*.

FORM OF THE PROFIT AND LOSS STATEMENT

A profit and loss statement showing the results of the purchase and the sale of a single unit of property is the simplest to explain since it involves very few transactions For example if Robert King purchases a house and lot for $10 000 and immediately sells them for $12 000 he can show the effect of the two transactions by the following statement

Sale Price of House and Lot	$12 000
Cost of House and Lot	10 000
Profit	$ 2 000

If he paid a real-estate agent a commission of $600 for selling the house and lot his profit would be shown in the following manner

Sale Price of House and Lot	$12 000
Cost of House and Lot	10 000
Gross Profit	$ 2 000
Commission	600
Net Profit	$ 1 400

In this summary only three transactions are involved (1) the purchase of the property (2) the sale of the property, and (3) the payment of the commission But in the average business there may be many purchases hundreds or even thousands of sales and a variety of expenses that are necessary in the making of the sales It is not practicable for a business to determine the gross and the net profit on each sale Moreover information about the exact profit on each sale is usually not needed The needs of the businessman are served satisfactorily if he knows the net results of his operations at the end of the fiscal period The profit and loss statement gives him a summary of his operations during each period in terms of income and expense

If Ray Folks during the month of December, purchases merchandise for $8 000 and sells it for $10 000 he makes a gross profit of $2 000 If he consumes commodities and services that cost $1 600 his net profit is $400 Commodities and services such as store and office supplies store space heat and light when consumed in the operation of a business are known as *expenses* Folks's profit and loss statement for the month of December would be as follows

Sales	$10 000
Cost of Goods Sold	8 000
Gross Profit	$ 2 000
Expenses	1 600
Net Profit	$ 400

THE ACCOUNTING PERIOD It is customary to determine in advance the length of the accounting period to be covered by the profit and loss statement. The period commonly chosen is a month because businessmen need information about the results of their operations at frequent intervals. Other periods are a quarter year, a half year, and a year. A business that makes monthly reports may also make quarterly, semiannual, and annual reports. Businesses almost invariably make annual reports because the year represents a recurring cycle of business activities. To be understood rightly, items and amounts appearing on the profit and loss statement must be considered in the light of the period covered by the statement.

Some transactions come within the limits of the accounting period and have effects pertaining to that period only; other transactions are *carried over from previous periods or may continue into future periods.* For example, the payment of a premium on a three-year insurance policy amounting to $72 results in an expense of $2 a month; this transaction continues into 35 future monthly periods. Office supplies left over at the beginning of a period from transactions of the previous period represent another type of carry-over. In these two cases and in all others the amounts shown on the profit and loss statement must conform to the length of the accounting period. Thus on a profit and loss statement for the month of May, sales, purchases, cost of goods sold, rent, and all other items must apply to that month alone; none may apply to April, which has passed, or to June, which is to come.

Ordinarily the number of units sold in a given accounting period does not correspond to the number of units purchased in that period. A portion of the purchases of the previous period is included in the sales of the current period. Likewise, a portion of the purchases of the current period may still be on hand at the end of the period and hence should not be included in the sales of the current period. It is necessary, therefore, in determining the cost of goods sold, to take into consideration the lag between purchases and sales.

DEFINITION OF ITEMS ON THE PROFIT AND LOSS STATEMENT The items shown on the profit and loss statement of James Hiatt, page 42, are those that are commonly included in the simple form of that statement. A discussion of each follows:

Sales. In a mercantile business the sales are the total amount customers have paid or have agreed to pay for the merchandise sold them. Various other types of businesses make sales of numerous commodities and services that are designated by different terms. For

Gross Profit on Sales. When the cost of merchandise sold is subtracted from the total sales, the difference represents the profit that would be made if no expenses were incurred in conducting the business. Expenses are always incurred, however, in the operation of a business, and they must be considered in determining the profit. Consequently, the difference between the amount received from sales and the cost of the merchandise sold is termed *gross profit on sales.* It is called *gross* profit because the expenses of operating the business must be deducted to obtain the final or *net* profit.

The difference between the cost price and the selling price was referred to in Chapter I, page 9, as *margin.* Margin is the amount in dollars and cents, or in percentage of sales, that the merchandiser receives for rendering service to his customers. The proprietor of a merchandising enterprise must keep his operating costs within his margin if he is to gain a net profit as a result of his operations. The extent of the margin definitely limits the scope of his activities unless he is willing to suffer a loss from operations.

Operating Expenses. Commodities and services of various kinds are consumed in the operation of a business. The services of sales clerks are used in selling merchandise to customers, and the services of other employees may be used in delivering to customers the merchandise sold. Paper and twine are consumed in wrapping the merchandise to prepare it for delivery. Coal is consumed in heating the building in which the business is conducted. Stationery and stamps are consumed in carrying on the correspondence between the business and its creditors and customers.

The operating expenses of a business could be shown as one item on the profit and loss statement, but this method would not provide adequate information concerning their nature. A proprietor desires to know the amount of each expense so that he can ascertain whether the amount is too large and, if it is, take measures to reduce it. He wishes the profit and loss statement to be made in such a form that he can see the amount of each expense. Large firms need a very detailed analysis of expenses for control purposes. In subsequent chapters considerable attention will be given to the method of providing this analysis.

CLASSIFICATION OF OPERATING EXPENSE ITEMS

The extent to which the classification of operating expenses is carried depends on the degree to which information on the profit and loss statement is used to measure business activities. The operating expenses of a large business will probably be classified in a large

number of groups, but those of a small business can usually be classified under one or two major heads. In a small retail business of the kind that has been used for illustrative purposes, it is usually satisfactory to classify the operating expenses in two main groups. In a service business like a repair shop, operating expenses may be shown in a single group.

Selling Expenses. Expenses that are incurred directly and entirely in connection with the sale of merchandise are known as *selling expenses*. They *include such things* as salaries of the sales force, store supplies used, and advertising.

Selling expenses that are not of sufficient importance to make it desirable to show them as separate items on the profit and loss statement are reported under the heading "Miscellaneous Selling Expense." In general the best classification of expenses is one that keeps at a minimum the amount representing miscellaneous selling expense. *Whenever the total of the miscellaneous selling* expense account is a considerable amount, this total should be analyzed and new expense classifications should be set up.

Gross Profit on Sales			$25,000
Operating Expenses:			
Selling Expenses:			
Sales Salaries	$ 8,000		
Advertising Expense	1,600		
Store Supplies Used	300		
Miscellaneous Selling Expense	100	$10,000	
General Expenses:			
Office Salaries	$ 2,500		
Office Supplies Used	400		
Insurance Expense	500		
Taxes	800		
Miscellaneous General Expense	800	5,000	
Total Operating Expenses			15,000
Net Profit from Operations			$10,000

operations. These incomes and expenses are reported after the net operating profit is obtained. The nature of these nonoperating incomes and expenses is discussed in later chapters.

If the total operating expenses are greater than the gross profit on sales, the difference between the two amounts is reported as *net loss from operations.*

HEADING OF THE PROFIT AND LOSS STATEMENT The name of the business and the period of time for which the profit and loss statement is made should be clearly stated. If the period covered is one year, the heading of the statement will indicate that sales, purchases, and other items are for a year.

Like the balance sheet, the profit and loss statement has a three-line heading consisting of (1) the name of the business, (2) the name of the statement, and (3) the period covered by the statement.

PERIOD COVERED BY THE PROFIT AND LOSS STATEMENT The length of time covered by the profit and loss statement is of extreme importance and significance. The items appearing in a profit and loss statement have no real meaning except when interpreted in connection with the period covered. Sales, purchases, cost of sales, and operating expenses represent continuing acts in the history of a business enterprise. Sales of $10,000, for instance, may have little importance until one knows that this amount represents sales for one month rather than for one year. One cannot judge the reasonableness of the rent expense of $1,200 without knowing the period of time to which it applies.

STANDARD FORM OF THE PROFIT AND LOSS STATEMENT

A profit and loss statement for James Hiatt for the year ended on December 31, 1949, and containing *the items discussed in the preceding paragraphs*, is shown below:

Hiatt Home Appliances
Profit and Loss Statement
For Year Ended December 31, 1949

Sales			100,000.00
Cost of Goods Sold			
Merchandise Inventory, January 1, 1949		12,000.00	
Purchases	78,000.00		
Freight In	3,000.00		
Delivered Cost of Purchases		81,000.00	
Merchandise Available for Sale		93,000.00	
Less Merchandise Inventory, December 31, 1949		18,000.00	
Cost of Goods Sold			75,000.00
Gross Profit on Sales			25,000.00
Operating Expenses			
Selling Expenses			
Sales Salaries	8,000.00		
Advertising Expense	1,600.00		
Store Supplies Used	300.00		
Miscellaneous Selling Expense	100.00		
Total Selling Expenses		10,000.00	
General Expenses			
Office Salaries	2,500.00		
Office Supplies Used	400.00		
Insurance Expense	500.00		
Taxes	800.00		
Miscellaneous General Expense	800.00		
Total General Expenses		5,000.00	
Total Operating Expenses			15,000.00
Net Profit from Operations			10,000.00

Profit and Loss Statement for a Mercantile Business

In a service type of business there are no inventory and purchases of merchandise; therefore the profit and loss statement has to report only the sales and the expenses. *If the business is small, it is probable* that the operating expenses will not be classified and that the profit and loss statement will be prepared in a form similar to that shown at the top of the following page.

R. K. Meade
Profit and Loss Statement
For Year Ended December 31, 1949

Sales		12,000 00
Operating Expenses:		
Wages Expense	2,400 00	
Rent Expense	1,200 00	
Supplies Used	1,500 00	
Miscellaneous Expense	900 00	
Total Operating Expenses		6,000 00
Net Profit from Operations		6,000 00

Profit and Loss Statement for a Service Business

INTERPRETATION OF THE PROFIT AND LOSS STATEMENT

The proprietor should watch carefully the ratio of each group of his expenses to his sales. If the ratio of his selling expenses to his sales shows an increase, it may be due to the fact that the sales volume is being obtained at an unsatisfactory cost. Most businesses can increase their sales if they are willing to incur sufficient expense. If an increase in the ratio of general expenses to sales is indicated, it may be because the rent expense is too large or the miscellaneous expense is too great. In any case the proprietor must watch these ratios carefully in order to make a satisfactory profit.

For example, the gross profit on the sales of James Hiatt is 25,000/100,000 or 25 per cent for the period covered by the statement on page 42. If this percentage of margin has declined from 30 per cent in the previous period to 25 per cent in this period, it may mean either that prices on commodities sold have dropped or that prices paid suppliers have advanced. Regardless of which is the cause, the condition is to the disadvantage of Hiatt, the proprietor.

The percentage of salaries of sales clerks to sales is 8,000/100,000 or 8 per cent; that of advertising expense to sales is 1,600/100,000 or 1.6 per cent.

The net profit is 10,000/100,000 or 10 per cent of sales. If this is an increase or a decrease as compared with the previous period, it is advisable for the proprietor to make a careful inquiry into all the factors. Most of these factors are shown on the two profit and loss statements, and a study of them should provide information for more intelligent operation in the future.

By dividing the cost of goods sold by the average merchandise inventory, the merchandise turnover is obtained. The more times the

merchandise is turned over in a year, the more efficient is the use of the inventory and the smaller is the amount of money that must be tied up in merchandise. The merchandise turnover of James Hiatt is found as follows

$12,000 beginning inventory
18,000 ending inventory

$30,000 ÷ 2 = $15,000, average inventory

$75,000, cost of goods sold ÷ $15 000 average inventory = 5, merchandise turnover

The merchandise turnover of James Hiatt during the current year was 5. If the merchandise turnover for the preceding year had been 8, less successful merchandising in the present period would be indicated. If the turnover in the preceding year had been only 3, the current period would indicate an improvement.

Comparisons similar to these should be made at the end of each fiscal period in order that the proprietor may determine whether his profit and loss statement indicates favorable or unfavorable tendencies. Other comparisons that are useful will be discussed in subsequent chapters.

and the net profit from operations for the year. The balance sheet subtracts the withdrawals of the proprietor during the year from the net profit, leaving the net increase in proprietorship since the last balance sheet. The profit and loss statement expands the idea of proprietorship increase shown in the balance sheet by summarizing the business operations of the period that result in that increase.

The profit and loss statement that accompanies a balance sheet measures the effect of the operations of the accounting period just preceding the date of the balance sheet. The balance sheet is cumulative; that is, it shows the financial position resulting from the activities summarized on all previous income statements. The profit and loss statement is limited to a particular accounting period; it is one of many such statements that, taken together, would give the result of the total volume of activities since the enterprise began.

QUESTIONS

1. (a) Explain why the amount of the gross profit is of interest to the proprietor. Illustrate your explanation. (b) If the profit and loss statement shows that the gross profit is decreasing, what are the probable causes? (c) In what ways may the proprietor remedy this condition?

2. The balance sheet of G. W. Dowe as of June 30 showed his proprietorship to be $4,000. His balance sheet as of July 31 showed his proprietorship to be $4,500. His balance sheet as of August 31 shows his proprietorship to be $4,300. Suggest reasons for these changes in the proprietorship.

3. If the purchases of The Reliable Food Company were $75,000 during the fiscal period, what was the cost of goods sold during the period:

(a) If there was no merchandise on hand at either the beginning or the end of the period?
(b) If the beginning inventory was $40,000 and there was no ending inventory?
(c) If there was no beginning inventory and the ending inventory was $10,000?
(d) If the beginning inventory was $30,000 and the inventory at the close of the period was $45,000?

4. Which of the following expenses should be classified on the profit and loss statement as selling expenses? as general expenses?

(a) Salaries of salesmen.
(b) Salary of a bookkeeper.
(c) Postage.
(d) Cost of pampnlets mailed to customers.

PROBLEMS

1. Following is an incomplete and incorrect profit and loss statement of V. T. Monroe for the year ended December 31, 1949:

			%
Sales		$120,000	100
Cost of Goods Sold:			
Merchandise Inventory, January 1, 1949	$ 16,000		
Purchases	88,000		
Merchandise Available for Sale	$104,000		
Less Merchandise Inventory, December 31, 1949	32,000		
Cost of Goods Sold		72,000	60
Gross Profit on Sales		$ 48,000	40
Operating Expenses		30,000	25
Net Profit from Operations		$ 18,000	15

The merchandise inventory of December 31 was made up of 9,000 items costing $1.50 each with a present market value of $2 each and 14,000 items costing $1 each with a present market value of 75¢ each. Items recorded as operating expenses include: (a) cost of new store equipment purchased in December, $8,000; and (b) $7,000, difference in cost of land $10,000 and assessed value on tax bill $3,000.

Instructions: (1) Prepare a corrected statement of profit and loss including new ratios to sales. (If you prepare your statement on paper with money columns containing perpendicular lines separating figures, you will not use dollar signs as used in the statement above. Dollar signs are not ordinarily used in any accounting report with such ruling.)

(2) Comment briefly on corrections made in the profit and loss statement and on the new ratios.

2. On January 1, 1949, Louis Grant began business with cash, $58,000, and merchandise, $22,000.

On December 31, 1949, a skeleton balance sheet for Mr. Grant is as follows:

Cash	$32,000		Accounts Payable	$ 20,000
Inventory	28,000	$ 60,000	Louis Grant, Capital	80,000
Selling Equipment		38,000		
Deferred Charges		2,000		
		$100,000		$100,000

His accounting records show the following additional information for the year:

CHAPTER IV

ACCOUNTS AND THE TRIAL BALANCE

RECORDING TRANSACTIONS The balance sheet equation presented in Chapter I, Assets = Liabilities + Proprietorship, may be expanded to take care of the profit and loss statement items as follows:

Assets = Liabilities + Proprietorship + Income − Expenses

Each item on the balance sheet and the profit and loss statement may be classified under one of the five headings shown in the expanded equation.

The last two items in the equation provide information regarding the changes in proprietorship. As was stated in previous chapters, an excess of income over expenses increases proprietorship; an excess of expenses over income decreases proprietorship. The profit and loss statement is an elaboration of the increase or decrease in proprietorship due to the operations of a fiscal period.

During any fiscal period the number of transactions completed by an ordinary business is large and results in many changes in assets, liabilities, proprietorship, income, and expenses. If an accurate balance sheet and profit and loss statement are to be prepared, it is necessary to record the results of all transactions producing changes in these items. It is the purpose of this chapter to discuss and illustrate the method that is used in recording the effect of individual transactions on assets, liabilities, proprietorship, income, and expenses. This method makes use of the *account* and gives the subject of accounting its name.

THE ACCOUNTING CYCLE In the life of a going business, time periods are set up in which a standard accounting process takes place. The periodic repetition of this accounting process is sometimes referred to as the *accounting cycle.* It consists of standardized procedure in recording and analyzing transactions and their effect on accounting statements.

It would be possible to change items on the two accounting statements as each transaction occurs, but that would be very time consuming and inefficient. In this and the following two chapters devices are described that will provide the needed information more economi-

An account similar to the cash account illustrated above is set up for each item appearing in the balance sheet. At the end of a period, the increases recorded in an account are added to the amount at the beginning of the period and the decreases are subtracted from this sum. The result is the amount to be shown on the balance sheet. In like manner, an account is kept with each item on the profit and loss statement so that the total of that account can be determined at the end of a fiscal period.

CONSTRUCTION OF ACCOUNTS The relationship of the accounting statements, the ledger, and the fundamental equation Assets = Liabilities + Proprietorship + Income − Expenses can be observed from the following illustration:

Robert Moore invests $2,500 in a repair shop. On his balance sheet the transaction would appear as follows:

Cash	$2,500	Robert Moore, Capital	$2,500

The investment of Moore may also be shown in accounts in the following manner:

Cash

$2,500	

Robert Moore, Capital

	$2,500

The names of the two accounts are Cash and Robert Moore, Capital. The title of each account is written over the horizontal line above the figures and is descriptive of the data in the account. Each account consists of two sides: the left and the right. It is customary to enter assets and additions to assets on the left side of asset accounts, and proprietorship and additions to proprietorship on the right side of proprietorship accounts.

The student will find it helpful to note the relation between accounts and the basic equation. Assets and additions to assets, which are on the left side of the equation, are entered on the left side of asset accounts. Proprietorship and additions to proprietorship, which are on the right side of the equation, are entered on the right side of proprietorship accounts. This method makes it possible to construct the equation from entries made in the accounts.

Moore next purchases supplies for $500 in cash. This transaction decreases his asset Cash by $500 and increases his asset Supplies by $500. The ledger of Moore then appears as shown at the top of the following page.

a decrease in proprietorship. After this transaction has been recorded, Moore's ledger appears as follows:

CASH

$2,500	$ 500
	1,000
	100

ACCOUNTS PAYABLE

	$1,000

REPAIR EQUIPMENT

$2,000	

ROBERT MOORE, CAPITAL

	$2,500

SUPPLIES

$500	

RENT EXPENSE

$100	

Moore receives $400 for repair jobs. This transaction increases his asset Cash by $400. The increase in the asset Cash is entered on the left side of the cash account. The transaction also results in an increase in income of $400. This income, which represents an increase in proprietorship, is entered on the right side of an account with the title "Sales."[1] After this transaction has been recorded, Moore's ledger appears as follows:

CASH

$2,500	$ 500
400	1,000
	100

ACCOUNTS PAYABLE

	$1,000

ROBERT MOORE, CAPITAL

	$2,500

REPAIR EQUIPMENT

$2,000	

SALES

	$400

SUPPLIES

$500	

RENT EXPENSE

$100	

At this point the complete accounting equation would be as follows:

Assets $3,800 = Liabilities $1,000 + Proprietorship $2,500 + Income $400 − Expense $100

[1]The principal income account of most businesses is entitled "Sales." Other titles may be used, however, when they are appropriate. For example, the principal income of a bank may be called "Interest"; of a professional man, "Professional Fees."

THE THEORY OF DEBIT AND CREDIT A separate account is constructed for each item on the balance sheet and the profit and loss statement If additional information is to be shown on either statement, additional accounts must be constructed to supply it The number of accounts to be opened in the ledger depends on the nature of the transactions and the extent of detail desired on the accounting statements

Each account is divided into three parts a space for the name of the account and two separate sections below the name The left section of the account is called the *debit side* and the right section is called the *credit side* When items are entered on the left side of the account they are called *debits* and the account is said to be *debited* When items are entered on the right side of the account, they are called *credits* and the account is said to be *credited* The difference between the total debits and the total credits of an account is called the *balance* of the account regardless of whether that difference is a debit or a credit.

In the store equipment account shown at the right the four debits of $400 $600 $300 and $500 represent the cost of store equipment acquired and the one credit of $300 represents the return of the third item The balance is $1 800 – $300 or $1 500

STORE EQUIPMENT

$400	$300
600	
300	
500	

Amounts owed to a creditor are entered on the right, or credit side of the accounts payable account When a payment is made to a creditor, the amount paid is entered on the left side of the accounts payable account as a debit, because the balance owed is decreased In the accounts payable account shown at the right, the credit items of $700 and $900 represent amounts due for purchases on account, and the debit item of $700 represents the amount paid for the first purchase

ACCOUNTS PAYABLE

$700	$700
	900

The original investment of the proprietor is entered on the right, or credit, side of his capital account Increases in proprietorship are entered on the credit side, decreases on the debit side

The theory of debit and credit, in its application to balance sheet accounts is illustrated by the diagram at the top of the following page

Any Asset Account	
Debit	Credit
Increases	Decreases

Any Liability Account	
Debit	Credit
Decreases	Increases

Any Proprietorship Account	
Debit	Credit
Decreases	Increases

A business transaction affects not less than two accounts. If only two accounts are affected, one must be debited and the other must be credited for a like amount. This equality of debit and credit is inherent in the equation presented in Chapter I (Assets = Liabilities + Proprietorship) and is the basis of what is known as the *double-entry system* of recording. In the double-entry system the sum of the debit entries in the ledger equals the sum of the credit entries.

If a transaction affects two asset accounts, it must represent an increase in one asset and a decrease in the other. The receipt of cash in payment of a customer's account represents an increase in the asset Cash and a decrease in the asset Account Receivable. If a transaction affects one asset and one liability account, both accounts must be increased or decreased in like amount.

The theory of debit and credit in its application to profit and loss statement accounts is based on the relationship of these accounts to proprietorship. The items in the profit and loss statement give the details that result in a net increase or decrease in proprietorship. Profit and loss statement accounts are therefore a type of proprietorship account. They are sometimes called *temporary proprietorship accounts*, since they are set up only to last through the fiscal or accounting period.

There are two types of profit and loss statement accounts: those that increase proprietorship and those that decrease proprietorship. The chief increasing account is sales or income from services. From the sales price, as has been said before, all costs and expenses must be subtracted. Cost and expense accounts are therefore those that decrease proprietorship. This is illustrated by the expanded accounting equation, together with the debit and credit schedule.

Assets		=	Liabilities		+	Proprietorship		+	Income		−	Cost and Expense	
+	−		−	+		−	+		−	+		+	−

The schedule given at the bottom of the preceding page relates the debit and credit theory to the expanded accounting equation It provides for all the groups of items in the balance sheet and the profit and loss statement and indicates the debit and credit treatment of each group Every item that may appear on either statement may be classified under one of the above groups and its relation to debit and credit may be determined thereby

The positive side of an account is determined by the position of its classifying parent in the accounting equation. The negative side is always the *opposite of the positive side* Thus Cash an asset account, has additions on the debit side and subtractions on the credit side, whereas Notes Payable a liability account has additions on the credit side and subtractions on the debit side Income and expense accounts commonly have entries on only one side Thus Sales an income account commonly has additions only on the credit side, and Sales Salaries an expense account commonly has additions only on the debit side

The account serves as a mathematical device for showing increases and decreases in values When items are to be added they are placed *on the same side of an account when items are to be subtracted from* an item or items previously entered in the account they are placed on the opposite side When the balance of an account is to be obtained the two columns of figures are added and the smaller sum is deducted from the larger Obviously the sum of the amounts entered on the left side of an asset account should not be less than the amounts on the right Similarly the sum of the amounts entered on the left side of a liability account should not exceed the sum of the amounts on the right

ARRANGEMENT OF ACCOUNTS IN THE LEDGER It is customary to arrange accounts in the ledger *in the same order in which they are* listed on the accounting statements Current asset accounts precede fixed asset accounts all asset accounts come before liability accounts proprietorship accounts are last in order If a *loose-leaf ledger is used*, any new account needed as the result of any transaction can be readily inserted into its correct place When accounts are to be opened for a series of transactions it is advisable to plan the order of the accounts to conform to the transactions to be recorded An estimate of the transactions that will probably be performed can be made from a study of the transactions of a previous period or of a similar business

DESCRIPTION OF A SERVICE BUSINESS

Since the number of accounts necessary for a service type business is less than the number needed for a merchandising type business, attention will be given first to accounting for the transactions of a service type business.

In any given business community, the number of service type businesses will compare favorably with the number of merchandising businesses. It is only necessary to consider the frequency of repair shops, real estate and insurance agencies, theaters, and transportation agencies in any area to appreciate the large number and variety of service businesses.

ILLUSTRATIVE CASE

Donald Calvin, C.P.A., who prepared the financial statements shown in the two previous chapters for James Hiatt, opened a public accounting office in a suburban shopping center in October, 1949. While he was engaged in professional practice, his activities, like those of lawyers, doctors, and dentists, had their business aspects. If a professional man is to succeed in his profession, his income from fees must exceed his operating expenses sufficiently to leave him a net profit, comparable with the salary he might be paid as a professional employee.

ILLUSTRATION OF A COMPLETE LEDGER AND TRIAL BALANCE

In order to show the application of the theory of debit and credit to items appearing on statements, the transactions for Donald Calvin, C.P.A., for the month of October are given on the following pages. In connection with each transaction, the accounts affected are related to one or more of the classifying groups in the expanded equation given on page 55. Each entry in each account is given the transaction letter to facilitate comparison of the entries.

(a) Donald Calvin, C.P.A., in opening a public accounting practice, invested $2,800 cash, an office desk and chair with a cost of $200, and a library costing $1,000.

ASSET

+	−

CASH

(a) $2,800	

OFFICE EQUIPMENT

(a) $200	

LIBRARY

(a) $1,000	

PROPRIETORSHIP

−	+

DONALD CALVIN, CAPITAL

	(a) $4,000

This transaction increased the asset account Automobile, and that account was therefore debited for $1,800. The asset account Cash was decreased and was credited for $600. The liability account Accounts Payable was increased by the difference between the total cost of the auto, $1,800, and the cash payment, $600, and was credited for $1,200. The record of the transaction was expressed as follows: "Debit Automobile, $1,800; credit Cash, $600, and credit Accounts Payable, $1,200."

(e) Paid Davis Equipment Co. $500 cash.

Asset				Liability			
+			−	−			+
Cash				**Accounts Payable**			
(a)	$2,800	(b)	$150	(e)	$500	(c)	$1,000
		(d)	600			(d)	1,200
		(e)	500				

This transaction reduced the liability account Accounts Payable, and that account was therefore debited for $500. The payment also reduced the cash account, and the asset account Cash was therefore credited for $500.

(f) Purchased office supplies for cash, $200.

Asset			
+			−
Cash			
(a)	$2,800	(b)	$150
		(d)	600
		(e)	500
		(f)	200
Office Supplies			
(f)	$200		

Transaction (f) represented the exchange of one asset, Cash, for another asset, Office Supplies. The office supplies account was debited for $200 to record the increase and Cash was credited for $200 to record the decrease.

(g) Received $150 cash, professional fees for services rendered a client.

Asset				Income			
+			−	−			+
Cash				**Professional Fees**			
(a)	$2,800	(b)	$150			(g)	$150
(g)	150	(d)	600				
		(e)	500				
		(f)	200				

The cash account was debited because the asset was increased. Professional Fees was credited because this income account, which represented proprietorship, was increased.

(h) Paid insurance premiums for year, $120.

ASSET

+		−	

CASH

(a)	$2,800	(b)	$150
(b)	150	(d)	600
		(e)	500
		(f)	200
		(h)	120

PREPAID INSURANCE

(h)	$120

In this transaction the asset Prepaid Insurance was increased and the asset Cash was decreased by $120 Prepaid Insurance was therefore debited and Cash was credited.

(i) Paid biweekly salaries, $350.

ASSET

+	−

CASH

(a)	$2,800	(b)	$150
(g)	150	(d)	600
		(e)	500
		(f)	200
		(h)	120
		(i)	350

EXPENSE

+	−

SALARIES EXPENSE

(i)	$350

This transaction represented a cash payment for biweekly salaries. The expense account was debited; the cash account was credited.

(j) Received a $200 fee for professional services (See transaction (g).)

(k) Purchased books for library, $100 (See transaction (h); debit the asset account Library.)

(l) Received a $100 fee for professional services. (See transaction (g).)

(m) Received a $150 fee for professional services (See transaction (g).)

(n) Paid telephone bill, $30 (See transaction (b); debit Miscellaneous Expense.)

(o) Paid miscellaneous bills, $150. (See transaction (b); debit Miscellaneous Expense.)

(p) Paid biweekly salaries, $350. (See transaction (i).)

(q) Received a $300 fee for professional services. (See transaction (g).)

(r) Withdrew $300 in cash for personal use.

Asset	
+	–

Proprietorship	
–	+

Cash			
(a)	$2,800	(b)	$150
(g)	150	(d)	600
(j)	200	(e)	500
(l)	100	(f)	200
(m)	150	(h)	120
(q)	300	(i)	350
		(k)	100
		(n)	30
		(o)	150
		(p)	350
		(r)	300

Donald Calvin, Personal			
(r)	$300		

In this case the withdrawal by the proprietor was not designed to decrease his capital investment of $4,000, but was meant to be a subtraction from profits being earned. It was likely that this amount had already been earned, but the accounting report of the amount of earnings would not be made until the end of the month. The withdrawal was therefore set up in a separate proprietorship account, Donald Calvin, Personal, which was debited; Cash was, of course, credited.

(s) Paid automobile expenses for month, $90. (See transaction (b): debit Automobile Expense.)

(t) Sent bills to clients for services rendered in October, $800.

Asset	
+	–

Income	
–	+

Accounts Receivable			
(t)	$800		

Professional Fees			
		(g)	$150
		(j)	200
		(l)	100
		(m)	150
		(q)	300
		(t)	800

This transaction represented charges to clients for work done up to the end of the month and should be reflected by a debit to Accounts Receivable, as this asset was increased, and by a credit to Professional Fees, as this income account was increased.

In the following illustration, transactions (a) to (t) are shown entered in accounts identified with major account classifications Each transaction should be traced to its proper account, and its relation to the expanded accounting equation should be determined

Assets = Liabilities + Proprietorship + Income − Expenses

Assets		Liabilities	+	Proprietorship	+	Income	+	+ Expenses	

Cash

(a) $7,800	(b) $ [illegible]
(g) 1,[illegible]	(f) [illegible]
(j) [illegible]	(e) [illegible]
(l) 100	(f) [illegible]
(m) 1[illegible]	(h) 1[illegible]
(q) [illegible]	(i) 350
	(k) 100
	(n) 30
	(o) 150
	(p) 3[illegible]
	(r) 300
	(s) [illegible]

Accounts Payable

(e) $ [illegible]	(c) $1,000
	(d) 1,200

Salaries Payable

D Calvin Capital

	(a) $1,000

D Calvin Personal

(r) $300	

Professional Fees

	(g) $1,[illegible]
	(j) 200
	(l) 100
	(m) 150
	(q) 300
	(t) 800

Salaries Expense

(i) $3[illegible]	
(p) 3[illegible]	

Rent Expense

(b) $150	

Automobile Expense

(s) $ [illegible]	

Office Supplies Used

Expired Insurance

Misc. Expense

(n) $ [illegible]	
(o) 150	

Accounts Receivable

(t) $800	

Automobile

(d) $1,800	

Office Equipment

(a) $ [illegible]	
(c) 1,000	

Library

(a) $1,000	
(k) 100	

Office Supplies

(f) $[illegible]	

Prepaid Insurance

(h) $1[illegible]	

X: 8F

Hg

20708.

THE TRIAL BALANCE Since the debit resulting from each transaction is equal to the credit resulting from that transaction, the total of the debits in all the accounts should equal the total of the credits in all the accounts. A test of the equality of the debits and the credits is made at intervals, usually at the end of each month. Such a test is known as a *trial balance.*

The trial balance serves to summarize the information shown in detail in the ledger. This summary is always prepared at the end of a fiscal period and provides most of the information needed to prepare the balance sheet and the profit and loss statement.

A trial balance may be taken by listing the total of the debits and the total of the credits of each account, adding these totals of the accounts, and then comparing the sum of the debit totals with the sum of the credit totals. A preferable method, however, is to use the difference between the total of the debits and the total of the credits of each account; that is, to obtain the debit or the credit balance of the account and then to list the debit and the credit balances of all the accounts on the trial balance. If the sum of the debit balances equals the sum of the credit balances, it is evident that the debits and the credits in the ledger are equal. A trial balance of the ledger of Donald Calvin, prepared according to the latter method, is illustrated below:

Donald Calvin, C.P.A.
Trial Balance
October 31, 1947

Cash	760.00	
Accounts Receivable	500.00	
Automobile	1,800.00	
Office Equipment	1,200.00	
Library	1,100.00	
Office Supplies	200.00	
Prepaid Insurance	120.00	
Accounts Payable		1,700.00
Donald Calvin, Capital		4,000.00
Donald Calvin, Personal	300.00	
Professional Fees		1,700.00
Salaries	700.00	
Rent Expense	150.00	
Automobile Expense	90.00	
Miscellaneous Expense	150.00	
	7,400.00	7,400.00

Trial Balance

PROOF PROVIDED BY THE TRIAL BALANCE The trial balance does not give a complete proof of the bookkeeper's work. It shows only that the debits and the credits are equal. This is valuable information, however, since errors frequently affect the equality of the debits and the credits, and are indicated by a trial balance that is out of balance. The trial balance does not, of course, prove that the proper account has been debited or credited or that the debits and the credits are for the proper amounts. It is therefore important that the accuracy of the figures be determined before they are entered in the bookkeeping record and that care be taken to record the entries in the proper accounts.

QUESTIONS

1. Which of the following accounts are most likely to have debit balances: Cash, Capital, Accounts Receivable, Rent Expense, Accounts Payable, Equipment? Give reasons for your answer.

2. Frank Warren, a retail grocer, asserts that he can very easily prepare a statement of his assets and his liabilities at any time and that he does not believe it is necessary for him to record his transactions in accounts. Do you think he is correct? Why?

3. I. M. Dimm prefers to enter assets and additions to assets on the right side of his accounts and capital and capital additions on the left side. (a) Is it possible to follow this plan? (b) Do you recommend that he do so?

4. The following accounts contain the record of the investment made by Jack Holley on October 1 and of five other transactions. List the transactions and relate each to the expanded accounting equation.

Cash	
(a) $2,000	(c) $1,000
(e) 1,200	(d) 800
	(f) 500

Accounts Payable	
(c) $1,000	(b) $1,500
(f) 500	

Service Income	
	(e) $1,200

Equipment	
(b) $1,500	

Jack Holley, Capital	
	(a) $2,000

Operating Expenses	
(d) $800	

5. During October cash amounting to $4,500 was received by Luxury Laundry. During the same month $5,000 in cash was paid. (a) How were these facts shown in the cash account? (b) Does it follow that October produced an operating loss of $500?

6. A bookkeeper takes a trial balance showing that the total debits in the ledger accounts are equal to the total credits. If a trial balance showing the balance of each account were taken from this ledger on the same date, would the trial balance totals be equal? Why?

7. At the end of the year (before he prepares his income tax statement), James Tracy has an accountant examine his books to determine whether they are correct. The auditor finds six mistakes. Tracy had taken a trial balance each month, but this procedure had not disclosed the errors. He therefore considers dispensing with the trial balance in the future. (a) Do you consider this advisable? (b) Suggest the types of errors that Tracy might have made and that would not have been shown by his trial balance.

PROBLEMS

1. Robert Bishop is a tax attorney. The accounts in his ledger are: Cash; Accounts Receivable; Office Equipment; Library; Notes Payable; Accounts Payable; Robert Bishop, Capital; Robert Bishop, Personal; Professional Fees; Operating Expenses.

On January 1 of the current year Mr. Bishop's assets, liabilities, and proprietorship were as follows:

Cash	$1,000	Library	$ 8,000
Accounts Receivable	4,000	Notes Payable	3,000
Office Equipment	2,000	Robert Bishop, Capital	12,000

Instructions: (1) Open "T" accounts for all of Mr. Bishop's accounts.
(2) Record the beginning balances in the appropriate accounts. Identify the balances in these accounts by "Bal."

During the month of January the following transactions were completed:

(a) Invested an additional $5,000 in cash.
(b) Purchased on account law books and tax services amounting to $450.
(c) Received $3,500 cash from a debtor on account.
(d) Paid the bank $2,500 to apply on the note payable.
(e) Paid the amount due on the law books and tax services, $450.
(f) Billed a client for $2,000 and charged the accounts receivable account.
(g) Collected $4,500 from other clients for legal work completed during the month.
(h) Paid in cash operating expenses of $4,000.
(i) Withdrew $1,500 for personal use.

Instructions: (3) Record the transactions in the "T" accounts. Identify each debit and each credit by the letter given for that transaction in the list of transactions.
(4) Take a trial balance as of January 31 of the current year.

2. On March 1 of the current year Ralph Blum opened a restaurant. He used the following accounts in his ledger Cash, Equipment, Restaurant Supplies, Notes Payable, Accounts Payable, Ralph Blum, Capital, Ralph Blum Personal, Sales, Food Purchases, Salaries, Rent Expense

During the month of March the following transactions were completed

(a) Invested the following assets Cash, $1,500 Equipment, $4 850, Restaurant Supplies $275 The following liabilities were also assumed Notes Payable $4 000 Accounts Payable, $150 Mr Blum's capital was $2 475
(b) Purchased on account additional restaurant equipment, $500
(c) Purchased on account restaurant supplies, $175
(d) Sales for March were $4,000 cash
(e) A summary of the cash payments showed Food Purchases, $2,005; Salaries, $960 Notes Payable, $1 000, Accounts Payable, $400 Total cash paid out was $4 365
(f) Rent in the amount of 10 % of gross sales of $4,000 is payable to the landlord (Debit Rent Expense and credit Accounts Payable)
(g) Withdrew $750 for personal use

Instructions (1) Record the foregoing transactions in "T" accounts Identify each debit and each credit by the letter given for that transaction
(2) Prepare a trial balance as of March 31 of the current year

3 B D Nash plans to operate the Bonded Messenger Service The accounts in his ledger are Cash, Delivery Equipment Prepaid Insurance, Supplies, Notes Payable, Accounts Payable, B D Nash Capital, B D. Nash Personal, Messenger Income, Drivers' Commissions, Dispatchers' Salaries, Rent Expense, Gas Oil, and Repairs, Utilities

Following are the transactions for April of the current year, the first month of operations

(a) Invested $1,000 cash
(b) Paid cash for April rent, $150
(c) Purchased delivery equipment for $5 000, giving $500 cash and a note payable for the balance
(d) Cash receipts for the first week are $1,000
(e) Paid drivers' commissions of one half of week's receipts, $500
(f) Purchased supplies on account, $350
(g) Cash receipts for the second week are $1,200
(h) Paid drivers' commissions of one half of week's receipts $600
(i) Purchased insurance for cash, $900 (Debit Prepaid Insurance.)
(j) Paid $500 cash on delivery equipment note
(k) Cash receipts for third and fourth weeks are $2 400
(l) Paid drivers' commissions of one half of receipts, $1,200
(m) Paid cash for gas, oil, and repairs, $200
(n) Paid cash for dispatchers' salaries, $450
(o) Withdrew $400 for personal use.
(p) Paid cash for utilities, $100

Instructions (1) Record the foregoing transactions in "T" accounts. Identify each debit and each credit by the letter given for that transaction
(2) Prepare a trial balance as of April 30 of the current year

CHAPTER V

THE WORK SHEET AND THE ACCOUNTING STATEMENTS

TRIAL BALANCE AND ACCOUNTING STATEMENTS The balance sheet and the profit and loss statement have already been presented as the finished products of accounting. The trial balance, explained in the previous chapter, provides most of the information needed for the preparation of these statements. The items in the trial balance are arranged in such an order that the balance sheet items come first and the profit and loss statement items come last. For example, in the trial balance of Donald Calvin on page 63, all accounts from Cash to Donald Calvin, Personal are balance sheet accounts; all accounts from Professional Fees to Miscellaneous Expense are profit and loss statement accounts.

Balance Sheet Accounts	Profit and Loss Statement Accounts
Cash	Professional Fees
Accounts Receivable	Salaries Expense
Automobile	Rent Expense
Office Equipment	Automobile Expense
Library	Miscellaneous Expense
Office Supplies	
Prepaid Insurance	
Accounts Payable	
Donald Calvin, Capital	
Donald Calvin, Personal	

Trial Balance Accounts of Donald Calvin

If the amounts in the trial balance were the correct amounts for the statements, it would be a simple matter to arrange the first group of items in the proper form for the balance sheet and the second group in the proper form for the profit and loss statement. The amounts would be correct for this purpose if all transactions recorded in the accounts coincided exactly with the accounting period. For example, if the exact amount of office supplies purchased were used and if insurance and rent applied only to the period covered by the profit and loss statement, no changes in trial balance amounts for these items would be needed when statements are prepared. It is obviously impossible to arrange transactions to avoid carry-overs between accounting periods. It is therefore necessary for accounting to provide a means of meeting this business condition. This chapter deals with the accounting procedure that provides correct amounts for the balance sheet and the profit and loss statement.

MIXED ACCOUNTS AND BUSINESS OPERATIONS An account with a balance that is partly a balance sheet amount and partly a profit and loss statement amount is called a *mixed account*. For example, the trial balance amount for Office Supplies shows the total of all supplies purchased during the period plus those on hand at the beginning of the period. By taking an inventory, or count, of office supplies at the end of a fiscal period, it is possible to find out how much has been used. The trial balance figure is called a mixed account since it includes the office supplies used plus those on hand. The account is mixed, therefore, because it includes the supplies on hand, a balance sheet item, and the supplies used, a profit and loss statement item.

The adjustment of mixed accounts consists in determining the correct balance sheet and profit and loss statement amounts for any trial balance item that is mixed. Usually adjustments are made necessary because of business operations that are not recorded currently. Office supplies purchased from outside suppliers are recorded currently and appear in the trial balance, but the amount used day by day is not recorded and requires an adjustment at the end of the accounting period.

In other cases an account that is wholly an asset at the time it is acquired may become an expense with the passing of time. A payment for insurance is an asset, Prepaid Insurance, at the time of payment, but it will expire month by month and will ultimately become an expense. At the end of any month during the life of the insurance, a part of the account balance is an expense and the rest is an asset.

Whether an account is a mixed account during the accounting period need not be considered if it is known that it will become wholly an expense before the end of the period. For example, a payment for one month's rent is wholly an asset if the rent is paid on the first of the month, but it will become wholly an expense by the end of the month. It is therefore debited to Rent Expense, an expense account. If, however, the rent payment covers more than one month, it is like prepaid insurance above and is debited to the asset account Prepaid Rent.

It is necessary to establish a practice for the recording of transactions affecting mixed accounts. A purchase of office supplies might be debited to the asset account Office Supplies or to the expense account Office Supplies Used. A purchase of insurance might be debited to the asset account Prepaid Insurance or to the expense account Expired Insurance. In this chapter and those that immediately follow, such transactions will be debited to asset accounts.

ADJUSTMENTS ILLUSTRATED IN ACCOUNTS

The nature of adjustments can best be illustrated in accounts. Accounts with Office Supplies and Office Supplies Used are shown below. During the month, office supplies were purchased for $200 and the office supplies account was therefore debited for that amount. At the end of the month it was found that the inventory of office supplies was $150. It was therefore evident that office supplies worth $50 had been used. The expense of the office supplies used was recorded in the office supplies used account by a debit of $50. The decrease of the asset, Office Supplies, was recorded by a credit of $50. The two accounts after this adjusting entry had been recorded are:

Office Supplies	
$200	Adjustment $50

Office Supplies Used	
Adjustment $50	

The office supplies account now shows a balance of $150, which is the asset; the office supplies used account shows a balance of $50, which is the expense.

Prepaid Insurance is another mixed account that requires adjustment at the end of a fiscal period. A debit balance in this account represents in part an expense of the current period and in part a deferred charge applicable to future periods. The expense of the current period should be transferred to an expense account, Insurance Expense.

If a payment of $120 was made for one year's insurance, the monthly charge was $10. The insurance expense account should therefore be debited for $10 to show an increase in that expense and the prepaid insurance account should be credited to show a decrease in that asset. The two accounts after this adjusting entry was recorded are shown below:

Prepaid Insurance	
$120	Adjustment $10

Insurance Expense	
Adjustment $10	

The prepaid insurance account now shows a balance of $110, which is an asset; the insurance expense account shows a balance of $10, which is an expense.

At the end of a fiscal period not only must mixed accounts be adjusted, but also certain other accounts must be brought up to date. For example, during the month Donald Calvin paid salaries biweekly.

These salaries were charged to the salaries expense account. At the end of the month he owed his employees for the salaries that they had earned since the last payday. It was therefore necessary to make an adjustment debiting the expense account Salaries Expense for the salaries that had been earned by the employees but not paid to them and crediting the liability account Salaries Payable for the salaries that were owed. After this adjustment was made, the salaries expense and salaries payable accounts appeared as follows:

Salaries Expense			Salaries Payable	
$350				Adjustment $100
350				
Adjustment 100				

The first two debits in the salaries expense account were the bi-weekly payments of $350 each. By reference to the payroll, it was found that the salaries earned between the last payday and the end of the month amounted to $100. The salaries expense account was therefore debited for $100 and the salaries payable account was credited for the same amount. After this adjustment the salaries expense account showed a debit balance of $800, the actual expense for the month to be reported on the profit and loss statement, and the salaries payable account showed a credit balance of $100, the amount to be reported on the balance sheet as a liability.

Business operations, as distinct from business transactions, are continually affecting items recorded in ledger accounts. Supplies are used, insurance expires, wages and salaries accrue. All these effects of operations on account balances are recognized at the time the accounting statements are prepared. This procedure avoids the necessity of recording currently the *internal transactions* that affect account balances. Adjustment procedure is a logical labor-saving device that *records in one amount all the internal transactions of an entire period.*

THE DONALD CALVIN WORK SHEET The adjustments discussed on the preceding pages of this chapter provide the account balances that are needed for the profit and loss statement and the balance sheet. But before the adjustments are actually recorded in the accounts themselves, it is usually customary to prepare a form known as a *work sheet*. The use of the work sheet helps to avoid the possibility of an adjustment being overlooked. It also provides a proof of the accuracy of the work and arranges all data in a logical form for the preparation of the statements.

The work sheet of Donald Calvin is illustrated on page 72. Note that the heading of this work sheet shows the period covered. This information will later be needed for the profit and loss statement, which will be prepared from the work sheet. The work sheet illustrated has ten money columns and is therefore known as a *ten-column work sheet*. The money columns are arranged in five pairs of columns headed as follows:

1. Trial Balance.
2. Adjustments.
3. Adjusted Trial Balance.
4. Profit and Loss Statement.
5. Balance Sheet.

As the first step in the preparation of the work sheet, the trial balance is entered in the columns at the left. The first two money columns, headed "Trial Balance," are then totaled to prove that the debits are equal to the credits.

Next the adjustments required at the end of the period are recorded in the Adjustments columns. These adjustments are as follows:

(a) The value of the inventory of office supplies is $150. The office supplies used therefore were worth $50, the difference between the balance of the office supplies account, $200, and the value of the inventory, $150. An adjusting entry is made crediting the asset account Office Supplies for $50 and debiting the expense account Office Supplies Used for the same amount. The credit is recorded in the Adjustments Cr. column on the line with the office supplies account. Since the account Office Supplies Used does not appear on the trial balance, it is written in the Name of Account column on the first line below the trial balance totals, and the debit is recorded in the Adjustments Dr. column.

(b) As 1/12 of the prepaid insurance of $120 has expired, the value of the asset Prepaid Insurance has decreased by $10 and insurance expense of $10 has been incurred. The adjusting entry shown on the work sheet therefore credits Prepaid Insurance for $10 in the Adjustments Cr. column and debits Insurance Expense for a like amount in the Adjustments Dr. column. Since the account title Insurance Expense does not appear on the trial balance, it is written in the Name of Account column on the first available line.

(c) Salaries owed at the end of the month amount to $100. The salaries expense account is therefore increased by a debit of $100 in the Adjustments Dr. column and the salaries payable account is credited for $100 in the Adjustments Cr. column. Since the account title

Salaries Payable does not appear on the trial balance, it is written in the Name of Account column on the first blank line.

Corresponding entries in the Adjustments columns are designated by the same letter for the convenience of those using the work sheet. The need for such designating letters will be more apparent in later work sheets having many adjustments.

In order to prove the accuracy of the amounts entered in the Adjustments columns, these columns should be totaled. When this is done, the totals are found to be \$160. If the two columns are not in balance, the entries should be checked until the error is discovered and corrected.

The Trial Balance columns and the Adjustments columns now contain all the information required to prepare the profit and loss statement and the balance sheet. To facilitate transfer of this information to the proper profit and loss statement and balance sheet columns, it has been found helpful to combine the first four columns into a new pair of columns headed "Adjusted Trial Balance."

Each item appearing in the Name of Account column is carried over into the Adjusted Trial Balance columns. Cash is carried over to the Adjusted Trial Balance Dr. column without change, because this amount has not been adjusted. The other current and fixed asset accounts — Accounts Receivable, Automobile, Office Equipment, and Library — are treated likewise. In the case of Office Supplies and Prepaid Insurance, the credit amounts in the Adjustments Cr. column are subtracted from the debit amounts in the Trial Balance Dr. column, and the net figures, \$150 and \$110, are carried over into the Adjusted Trial Balance Dr. column.

This procedure is followed until the Adjusted Trial Balance columns contain every item in the original trial balance and all the adjustments. The Adjusted Trial Balance columns are then totaled and ruled as shown in the illustration to prove that, after the adjustments have been made, the debits are still equal to the credits.

The amounts in the Adjusted Trial Balance columns are then transferred to the proper columns under "Profit and Loss Statement" and "Balance Sheet." The asset items are transferred to the Balance Sheet Dr. column; the liability and capital items, to the Balance Sheet Cr. column. The balance of the proprietor's personal account represents a deduction from proprietorship and is therefore extended into the Balance Sheet Dr. column.

All the other items on the original trial balance represent income and expenses and are therefore extended into the Profit and Loss Statement columns. Since the balance of the professional fees account

represents income, it is entered in the Profit and Loss Statement Cr. column. The amounts of Salaries Expense, Rent Expense, Automobile Expense, and Miscellaneous Expense represent expenses and are therefore extended into the Profit and Loss Statement Dr. column.

The first two items entered on the work sheet below the original trial balance are expense items and are therefore extended into the Profit and Loss Statement Dr. column. The last item, Salaries Payable, is a liability and is extended into the Balance Sheet Cr. column.

After all the amounts have been extended into the Profit and Loss Statement columns and the Balance Sheet columns, these columns are totaled. The difference between the total of the Profit and Loss Statement Dr. column, $1,280, and the total of the Profit and Loss Statement Cr. column, $1,700, is the amount of the net profit for the period. The net profit of Calvin is therefore $420. If the work sheet has been completed correctly, this amount, $420, is also the difference between the total of the Balance Sheet Dr. column and the total of the Balance Sheet Cr. column, because the increase in the proprietorship during the period plus the withdrawals should equal the profit for the period. In other words, the profit for the period, $420, is made up of $300 of drawings plus $120 increase in proprietorship.

The amount of the profit, $420, is added to the total of the Profit and Loss Statement Dr. column to show that the expenses plus the net profit are equal to the total of the Profit and Loss Statement Cr. column. The same amount, $420, is then added to the total of the Balance Sheet Cr. column. The sum obtained by this addition is equal to the total of the Balance Sheet Dr. column.

The totals of the four columns under the headings "Profit and Loss Statement" and "Balance Sheet" are brought down to the same line, and the columns are ruled with double lines. The work sheet has now been completed and can be used in the preparation of the statements.

Since the work sheet is, as its name implies, used to assist in recording adjustments and in preparing data for the profit and loss statement and the balance sheet and is not a principal statement itself, it is customary to prepare it in pencil. It is not a formal statement and is not submitted to the proprietor or others interested in the business.

THE DONALD CALVIN PROFIT AND LOSS STATEMENT

The profit and loss statement for Donald Calvin for the month ended October 31 may now be prepared from the work sheet. All the figures required are obtained from the Profit and Loss Statement columns. The profit and loss statement is shown on the opposite page.

Donald Calvin, C.P.A.
Profit and Loss Statement
For the Month Ended October 31, 1949

Professional Fees			1700	00
Operating Expenses:				
Salaries Expense	800	00		
Rent Expense	150	00		
Automobile Expense	90	00		
Office Supplies Used	50	00		
Insurance Expense	10	00		
Miscellaneous Expense	180	00		
Total Operating Expenses			1280	00
Net Profit from Operations			420	00

Profit and Loss Statement

The profit and loss statement shows Salaries Expense to be 47 per cent (\$800 ÷ \$1,700). This is almost half the total income and may indicate the need for additional business or part-time employment for one of the employees. The percentage of gross income retained by Donald Calvin, C.P.A., is approximately 25 per cent (\$420 ÷ \$1,700). This is probably due to the fact that October is the first month of operations and the volume of professional fees is just getting started. Mr. Calvin should watch carefully in the following months for favorable changes in these percentages.

The amount of Miscellaneous Expense is, perhaps, too large in comparison with other expense items. It would be advisable to make an analysis of the \$180 of miscellaneous expense and to set up one or two specific expense accounts to provide more explicit information.

THE DONALD CALVIN BALANCE SHEET The data for the Donald Calvin balance sheet are shown in the Balance Sheet columns of the work sheet. All of the items appearing on the balance sheet, together with the correct amounts, are available in these columns. The balance sheet prepared from these data is shown on page 76.

It should be noted that, for balance sheet purposes, the amounts owed to creditors are shown as one item, Accounts Payable. Examination of other balance sheet items will show that most of them represent groups rather than separate details. Office Equipment, Library, Office Supplies, and Salaries Payable, for example, stand for several individual

Donald Colvin, CPA
Balance Sheet
October 31, 1949

Assets			
Current Assets			
Cash		760 00	
Accounts Receivable		800 00	
Total Current Assets			1560 00
Fixed Assets			
Automobile		1800 00	
Office Equipment		1200 00	
Library		1100 00	
Total Fixed Assets			4100 00
Deferred Charges			
Office Supplies		150 00	
Prepaid Insurance		110 00	
Total Deferred Charges			260 00
Total Assets			5920 00
Liabilities			
Current Liabilities			
Accounts Payable		1700 00	
Salaries Payable		100 00	
Total Current Liabilities			1800 00
Proprietorship			
Donald Colvin, Capital, October 1		4000 00	
Profit for Month	220 00		
Less Withdrawals	100 00	120 00	
Donald Colvin, Capital, October 31			4120 00
Total Liabilities and Proprietorship			5920 00

Balance Sheet

items In later chapters the accounting for a detailed record will be explained

The form of balance sheet used previously is known as the *account form* The form used in the balance sheet illustrated above is known as the *report form* The two forms are much the same, except that in the account form the liabilities and the proprietorship are written at the right of the assets, while in the report form they are written below the assets. The account form usually requires a very wide form or a double page, especially when account titles are long and amounts are large. When a wide form is undesirable, the report form is used

CLASSIFICATION OF ACCOUNTS The principal classes of accounts to be found in the ledger have been presented in this and the preceding chapters. The number of accounts in the ledger is determined by the number of items on the balance sheet and the profit and loss statement. The order of accounts in the ledger should agree with the order of items on the accounting statements.

The chart of accounts presented in the illustration on this page shows the five major classes of accounts for the service business illustrated in this chapter. Under each major classification are shown the minor classifications. The accounts are identified with each minor classification.

The first three classes provide for the recording of transactions affecting items on the balance sheet; the last two classes, for the recording of transactions affecting items on the profit and loss statement. The first three groups are permanent, lasting as long as the business. The last two groups are temporary because they are closed at the end of each accounting period; their existence is therefore limited to the length of the accounting period.

BALANCE SHEET ACCOUNTS

1. Asset Accounts
    1. Current Assets
        1. Cash
        2. Accounts Receivable
    2. Fixed Assets
        1. Automobile
        2. Office Equipment
        3. Library
    3. Deferred Charges to Expense
        1. Office Supplies
        2. Prepaid Insurance
2. Liability Accounts
    1. Current Liabilities
        1. Accounts Payable
        2. Salaries Payable
3. Proprietorship Accounts
    1. Donald Calvin, Capital
    2. Donald Calvin, Personal
    3. Profit and Loss Summary*

PROFIT AND LOSS STATEMENT ACCOUNTS

4. Income Accounts
    1. Professional Fees
5. Expense Accounts
    1. Operating Expenses
        1. Salaries Expense
        2. Rent Expense
        3. Automobile Expense
        4. Office Supplies Used
        5. Insurance Expense
        6. Miscellaneous Expense

Chart of Accounts for Donald Calvin, C.P.A.

*The use of the profit and loss summary account is discussed and illustrated in Chapter VI.

QUESTIONS

1 Some writers call expenses expired assets Explain this term by the use of two examples used in this chapter

2 Assume that a business pays salaries on Saturday and that the salaries for all days are the same If sales salaries are $300 weekly and office salaries are $180 weekly what adjustments are needed when the fiscal period ends on Tuesday? on Monday? on Thursday?

3 Give the adjustments indicated by the following information

	Store Supplies	Prepaid Rent	Prepaid Insurance	Office Supplies	Sales Salaries	Office Salaries
Balance August 1	$ [illegible]50		$360	$100		
August transactions	3[illegible]5	$600	210	175	$500	$300
On hand August 31	200	500	405	90		
Unpaid August 31					150	50

4 The following accounts from the ledger of W H Bell contain transactions for the month of October of the current year

Cash

a	6 000	(b)	2 200
d	8 000	(c)	500
		(e)	750
		(f)	4 000
		(g)	250

Prepaid Insurance

c	500		

Sales

		(d)	8 000

W H Bell Capital

		(a)	6 000

Salaries Expense

(f)	4 000		

Supplies

(b)	2 200		

W H Bell Personal

(g)	250		

Misc Expenses

(e)	750		

(a) What are the transactions recorded in the accounts?

(b) Prepare a ten-column work sheet using the following data supplies inventory October 31, $400 prepaid insurance $450 salaries payable, $400

5 (a) In Question 4, what new accounts would you suggest that W H Bell might set up? (b) What per cent of gross sales does he retain for his services?

PROBLEMS

1. The balances in the ledger accounts of Robert Burns, D.D.S., on December 31 of the current year are:

Cash	$9,150	Professional Fees	$25,000
Accounts Receivable	5,000	Laboratory Expense	4,500
Dental Supplies	1,000	Rent Expense	3,600
Prepaid Insurance	450	Nurse's Salary	3,100
Robert Burns, Capital	2,000	Misc. General Expense	200

Adjustments:

Dental supplies on hand	$350
Insurance expired	250
Nurses' salary payable	20

Instructions: (1) Prepare a 10-column work sheet for the yearly period. Identify corresponding debits and credits in the Adjustments columns with the same letter.

(2) Prepare a profit and loss statement and a balance sheet in report form.

2. The balances in the ledger accounts of Fred Morrison, who operates the All Nations Employment Agency, are as follows on January 31 of the current year:

Cash	$ 600	Fred Morrison, Personal	$ 400
Office Equipment	500	Fees	1,400
Prepaid Rent	450	Salaries	240
Office Supplies	150	Misc. General Expense	60
Fred Morrison, Capital	1,000		

Adjustments at the end of one month's operations:

Accrued fees (debit Fees Receivable)	$250
Salaries payable	30
Prepaid rent	300
Office supplies on hand	125
Advertising payable to newspapers (debit Advertising Expense, credit Accounts Payable)	75

Instructions: (1) Prepare a 10-column work sheet for the monthly period. Identify corresponding debits and credits in the Adjustments columns with the same letter.

(2) Prepare a profit and loss statement and a balance sheet in account form.

3. The balances in the ledger accounts of George Baldwin, owner of the Baldwin Garage, on April 30 of the current year are as follows:

Cash	$ 800	George Baldwin, Capital	$3,290
Accounts Receivable	300	Sales	2,400
Garage Equipment	3,500	Labor Expense	740
Garage Supplies	1,000	Miscellaneous Expense	100
Accounts Payable	750		

Adjustments required at the end of one month's operations are rent payable, 10% of sales, labor payable, $60, miscellaneous expenses accrued (credit Accounts Payable) $40, garage supplies on hand, $580

Instructions (1) Prepare a 10-column work sheet for the monthly period. Identify corresponding debits and credits in the adjustment columns with the same letter

(2) Prepare a profit and loss statement and a balance sheet in report form.

(3) (a) What per cent of sales is labor expense?

(b) What percentage of gross income is retained by Mr Baldwin?

4 On July 1 of the current year Nathan Fine opened a 24 hour cash and-carry dry cleaning service The accounts in his ledger were as follows: Cash Machinery and Equipment, Dry Cleaning Supplies, Prepaid Rent; Prepaid Insurance Notes Payable, Accounts Payable, Nathan Fine, Capital, Sales, Labor Expense, Power Expense, Miscellaneous Expense

During the month of July the following transactions were completed:

(a) Invested $2 000 cash
(b) Purchased machinery and equipment for $5,000, giving $500 cash and a note payable for the balance
(c) Paid cash for two months rent, $300 (debit Prepaid Rent)
(d) Purchased insurance on account, $360 (credit Accounts Payable).
(e) Paid cash for dry cleaning supplies, $160
(f) Cash sales for dry cleaning services July 1 to 15, $650
(g) Made a $500 payment on the note payable — see transaction (b)
(h) Purchased dry cleaning supplies on account, $225 (credit Accounts Payable)
(i) Paid insurance in full, see transaction (d)
(j) Cash sales for dry cleaning services for balance of month, $700
(k) Paid $15 cash for telephone and miscellaneous expenses and $45 cash for electricity and power
(l) Paid monthly wages, $600

At the end of the month the following adjustments were required:

Dry cleaning work completed and not yet picked up and paid for by customers (debit Accounts Receivable)	$150
Dry cleaning supplies on hand	175
Insurance used up	30
Rent — see transaction (c)	

Instructions (1) Record the foregoing transactions in 'T' accounts. Identify corresponding debits and credits by the letter given for that transaction

(2) Prepare a trial balance as of July 31 in the first two columns of a 10-column work sheet.

(3) Complete the 10-column work sheet.

(4) Prepare a profit and loss statement and a balance sheet in report form.

(5) (a) What per cent of sales is labor expense?

(b) What percentage of gross income is retained by Mr Fine?

CHAPTER VI

THE ACCOUNTING CYCLE

ACCOUNTING AND BOOKKEEPING Previous chapters have explained how the transactions performed by a business may be analyzed and how their effect on the financial condition of the business is recorded in accounts. Emphasis has been placed on the analysis and the summary of business transactions. The *recording* phase, sometimes called bookkeeping, will be stressed in this chapter. Through bookkeeping, accounting must provide a complete record so that no important event in the history of the business is omitted. This objective requires bookkeeping records beyond those already presented.

In the first place, the information that can be recorded in the account is meager. Since the account is a means by which information is summarized and classified, it does not give details. If the account were expanded to show all the details that might be desired, it would serve less well as a device for classifying and summarizing, which are its two chief functions.

Again, if transactions are recorded directly in accounts, errors made in the record cannot be corrected easily. As the debit and the credit resulting from a transaction are recorded in different accounts, a wrong amount entered in an account, or a debit or a credit placed on the wrong side of an account, is difficult to locate.

Finally, it is difficult and tedious to enter transactions one by one in accounts. In a large business this method of recording transactions is impossible, for only one person at a time can conveniently work on a ledger and many employees are required to make a record of all the transactions of such a business.

For these reasons it is customary to make a preliminary record of transactions before they are entered in accounts. Such a record is called a *record of original entry.* It shows the debits and the credits resulting from transactions and gives the descriptive data necessary to provide a permanent explanation of the transactions. From time to time the debits and the credits entered in the record are transferred to the accounts in the ledgers, which in turn constitute the basis of the accounting reports.

When business transactions are recorded in sequence as they occur in a single record of original entry, that record is called a *general journal.* It possesses the advantage of a perfect chronological record

of the transactions of a business. All the business of a day is recorded together so that it is easy to measure the transactions of any given day.

GENERAL JOURNAL — PAGE 2

DATE		DESCRIPTION	POST REF	DEBIT AMOUNT	CREDIT AMOUNT
Jan	15	Labor Expense		120 00	
		Cash			120 00
		Paid accountant for two			
		weeks labor			
	30	Miscellaneous Expense		60 00	
		Cash			60 00
		Paid telephone, light, water			
		and other miscellaneous			
		bills			

Standard Ruling for the General Journal

An entry is recorded in the general journal in the following manner:

The year is written in small figures at the top of the first column It is not written again on a page unless the year changes.

The month of the first transaction is written on the first line in the first column at the extreme left. The name of the month is entered again only at the top of a new page or at the beginning of a new month.

The day of each transaction is written in the second column on the first line used by each transaction It is repeated for each transaction regardless of the number of transactions completed on the same day.

The names of the accounts to be debited and credited and the explanation of the transactions are written in the Description column. The account to be debited is written first. The account to be credited is written on the following line and is indented about one-half inch. The explanation of the transaction is written on the next line and is indented about one inch.

The explanation should describe the transaction sufficiently to justify the accounts debited and credited. It should also contain any essential information relating to the transaction not otherwise recorded by the entry.

The debit amount is written in the Debit Amount column opposite the name of the account debited. The credit amount is written in the Credit Amount column opposite the name of the account credited.

No entry is made in the column headed "Post. Ref." (posting reference) at the time that the entry is made in the journal. The debits and the credits will later be transferred to the proper accounts in the

ledger. At the time this transfer is made, the page on which the account appears in the ledger will be written in the Posting Reference column. This process is explained on page 84.

The second transaction may be recorded in the journal on the line immediately below the first transaction. Many bookkeepers, however, prefer to leave a blank line between transactions.

STANDARD FORM OF THE ACCOUNT The "T" accounts used in Chapters IV and V are constructed in the simplest form possible. While this form of account serves the major account purposes, it does not provide a complete record of all the information that it is useful to show in an account. By adding special columns to the basic "T" account form, the standard ruling is obtained. It is illustrated below:

Cash PAGE

DATE		ITEMS	POST REF	DEBIT AMOUNT		DATE		ITEMS	POST REF	CREDIT AMOUNT	
1949 Nov	1		1	600	00	1949 Nov	1		1	300	00
	4		1	150	00		5		1	300	00
	15		1	400	00		14		1	120	00
	30		2	700	00		17		1	200	00
							28		2	120	00
							30		2	60	00
							30		2	300	00

Account with Several Entries

The columns on both the debit and the credit side provide for: (1) the date; (2) a brief explanation of the entry, if it is desired; (3) the page reference to the book of original entry in which the transaction was recorded; and (4) the amount.

Ledger paper may be purchased either with or without the printed headings shown in this illustration.

POSTING The process by which the debits and the credits recorded in the journal are transferred to accounts is called *posting*. It consists in transferring each amount in the Debit Amount column of the journal to the debit side of an account and in transferring each amount in the Credit Amount column of the journal to the credit side of an account. The account to which

each item is to be posted may be determined from the title of the account stated in the journal All debit items may be posted first and then all credit items so that there will be less likelihood of posting items to the wrong side of accounts

In posting a debit item to the ledger, it is customary to record the information in the following order

(1) The debit amount is entered in the Debit Amount column

(2) The date is entered in the Date column on the debit side If the entry is the first on that side of the account the date consists of the year in small figures at the top of the first column the month on the first line, and the day of the month in the second column The year and the month are not repeated on the same page unless they change or unless the books are ruled in a manner illustrated later in this chapter The day of the month is recorded for each entry

(3) The page in the journal from which the transaction is being posted is recorded in the Posting Reference column in the ledger

After these three details have been posted the number of the ledger page is entered in the Posting Reference column of the journal on the line with the amount When the ledger page number appears in the Posting Reference column of the journal it shows that all the details of posting this one item have been completed If the work of posting is interrupted this page number shows how much posting has been completed Entering the journal page in the ledger and the ledger page in the journal also provides a convenient cross reference between the ledger and the journal that is often useful

A credit item is posted to the ledger in exactly the same way as a debit item, except that the amounts are entered on the right or credit side of the account instead of on the left or debit side

ILLUSTRATIONS OF THE JOURNAL AND THE LEDGER

On November 1, Edward Mills invested $600 in cash, $300 in accounts receivable, $1,200 in repair equipment, and $400 in supplies in a service business that he named Reliable Repairs This investment may be recorded in the journal by four simple journal entries, the first debiting Cash and crediting Edward Mills, Capital, the second debiting Accounts Receivable and crediting Edward Mills, Capital, the third debiting Repair Equipment and crediting Edward Mills Capital, and the fourth debiting Supplies and crediting Edward Mills Capital The preferred method, however, is to make a single entry debiting the four asset accounts and crediting the proprietorship account for the total Such an entry is called a *compound journal entry* and is illustrated on the opposite page

GENERAL JOURNAL PAGE 1

DATE		DESCRIPTION	POST REF.	DEBIT AMOUNT	CREDIT AMOUNT
19-- Nov.	1	Cash		600 00	
		Accounts Receivable		500 00	
		Repair Equipment		1200 00	
		Supplies		400 00	
		Edward Mills, Capital			2500 00
		Invested above assets in enterprise named Edward's Repairs.			

Compound Journal Entry

If there had been a claim outstanding on the assets invested by Mills, the journal entry would have shown the values of the assets in the Debit Amount column; the amount of the liability in the Credit Amount column, and the difference between the values of the assets and the amount of the liability, which would represent the proprietorship, in the Credit Amount column.

After making the investment, Mills completed the following transactions during November:

1. Paid $300 rent on a lease rental contract, the payment representing three months' rental.
2. Bought additional repair equipment on account from Simpson Equipment Co. for $1,000.
4. Received $150 in cash from customers in payment of their accounts.
5. Paid $300 cash to Simpson Equipment Co. to apply on the $1,000 owed them.
14. Paid assistant $120 for two weeks' labor.
15. Recorded receipt of $400 cash from sales of services for the first half of November.
17. Purchased additional supplies for cash, $200.
28. Paid assistant $120 for two weeks' labor.
30. Paid telephone, light, water and other miscellaneous bills for the month, $60.
30. Recorded receipt of $700 cash from sales of services for the second half of November.
30. Withdrew $300 cash from the business for personal needs.

The illustration on pages 86 and 87 shows the journal after the foregoing transactions have been recorded and posted to the ledger. The entries as they were first made did not include the page numbers of the accounts shown in the Posting Reference column; these page numbers were entered at the time the items were posted.

GENERAL JOURNAL

General Journal

The ledger accounts after the posting of the general journal on pages 86 and 87 are shown on pages 88 and 89. Tracing each entry from the journal to the ledger accounts will give a clear understanding of the process of posting.

Each account is a separate page in the ledger. Observe that the page number is given at the upper right of each account. The pages in this ledger are numbered consecutively, but pages 7, 10, 13, and 14 are not shown in this illustration. These pages are reserved for accounts that the bookkeeper knows will be required later. These accounts are illustrated later in this chapter.

Accounts Payable

PAGE 6

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1940 Nov.	5		1	300 00	1940 Nov.	2	700.00	1	1,000 00

Edward Mills, Capital

PAGE 8

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
					1940 Nov.	1		1	2,500 00

Edward Mills, Personal

PAGE 9

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1940 Nov.	30		2	300 00					

Sales

PAGE 11

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
					1940 Nov.	15		1	400 00
						30		2	1,788 58

Labor Expense

PAGE 12

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1940 Nov.	14		1	120 00					
	28		2	120 00					

Miscellaneous Expense

PAGE 15

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1940 Nov.	30		2	60 00					

Ledger After Posting But Before Adjusting and Closing — Concluded

THE TRIAL BALANCE AND THE WORK SHEET As the first step in preparing the trial balance, the accounts having two or more debits or credits are footed For accounts having both debits and credits the balance is entered Observe in the illustration on page 88 that in the cash account the debit and the credit amount columns are totaled The totals, called *pencil footings*, are entered in small pencil figures immediately below the last entry on each side so that the footings will not interfere with an entry made on the following line The difference between the debit footing and the credit footing is the *balance* It is entered in small pencil figures in the Items column of the account on a line with and on the same side as the larger of the two footings Observe that in the cash account the debit footing is larger than the credit footing and therefore the balance of $450 is entered in the Items column on the debit side This balance is the amount that is to be entered on the trial balance

The repair equipment, supplies sales, and labor expense accounts are also footed but the balances are not entered in the Items columns as each account contains entries on one side of the account only and therefore the footing is the balance Accounts, such as the accounts receivable account on page 88, having only one debit and one credit are not footed but the balance is entered in the Items column Accounts such as the prepaid rent account that contain only one entry are not footed and the balance is not entered in the Items column because the amount of the entry is the amount of the balance

The trial balance of Reliable Repairs taken at the end of November is shown below

Reliable Repairs
Trial Balance
November 30 1949

Cash	1	450 00	
Accounts Receivable	2	150 00	
Repair Equipment	3	2200 00	
Supplies	4	600 00	
Prepaid Rent	5	300 00	
Accounts Payable	6		700 00
Edward Mills Capital	8		2500 00
Edward Mills Personal	9	300 00	
Sales	11		1100 00
Labor Expense	12	240 00	
Miscellaneous Expense	15	60 00	
		4300 00	4300 00

Trial Balance

After the preparation of the trial balance, information for the adjustments is obtained and a work sheet is prepared (see page 92). The information for the adjustments is as follows:

Rent expired in November	$100
Inventory of supplies, November 30	320
Due assistant for November 29, 30	20

From the foregoing information, the following adjustments are recorded in the Adjustments columns of the work sheet:

(a) Since three months' rent was represented by the payment on November 1, the asset account Prepaid Rent was debited. On November 30, one third of the prepaid rent has become an expense. This is entered on the work sheet by writing Rent Expense below the trial balance items and debiting it for $100. The credit entry of $100 is written in the credit column on the same line with Prepaid Rent.

(b) The inventory taken of the supplies shows that the supplies at the end of the fiscal period are worth $320; therefore supplies worth $280 have been used. The expense resulting from the use of the supplies is entered on the work sheet by debiting the expense account Supplies Used for $280. The decrease in the value of the asset Supplies is entered by crediting that account for $280.

(c) Since wages are paid biweekly on Mondays and since the month of November ends on Wednesday, the assistant has earned two days' wages since his last payment and up to the end of the month. This wage that has accrued but that is not yet due is a proper addition to the labor expense of November and constitutes a current liability on November 30. The adjustment entry designated (c) increases the operating expenses and sets up the liability.

After the adjustments have been recorded in the Adjustments columns of the work sheet, the adjustments are combined with the original trial balance to provide the adjusted trial balance. The figures in the Adjusted Trial Balance columns are then extended into the Profit and Loss Statement and Balance Sheet columns. The difference between the total of the Profit and Loss Statement Cr. column and the Profit and Loss Statement Dr. column is found to be $400, the net profit for the month. The correctness of the work is proved by the fact that this amount is also the difference between the totals of the Balance Sheet Dr. and Cr. columns. The net profit from operations is then added to the Profit and Loss Statement Dr. column and to the Balance Sheet Cr. column, and all columns are ruled in the manner shown.

PROFIT AND LOSS STATEMENT The profit and loss statement for Reliable Repairs for the month ended November 30 may now be prepared from the work sheet. All the figures required for the profit and loss statement are obtained from the Profit and Loss Statement columns of the work sheet. The profit and loss statement prepared from the work sheet is shown below:

Reliable Repairs
Profit and Loss Statement
For Month Ended November 30, 1949

Sales		1100 00
Operating Expenses:		
Labor Expense	260 00	
Rent Expense	100 00	
Supplies Used	280 00	
Miscellaneous Expense	60 00	
Total Operating Expenses		700 00
Net Profit from Operations		400 00

Profit and Loss Statement

BALANCE SHEET The data for the Reliable Repairs balance sheet are shown in the Balance Sheet columns of the work sheet. All of the items appearing on the balance sheet, together with the correct amounts, are available in these columns. The balance sheet prepared from these data is shown on the following page.

Reliable Repairs
Balance Sheet
November 30 1949

Assets			
Current Assets			
Cash		450 00	
Accounts Receivable		150 00	
Total Current Assets			600 00
Fixed Assets			
Shop Equipment			2200 00
Prepaid Expenses			
Supplies		320 00	
Prepaid Rent		200 00	
Deferred Charges			520 00
Total Assets			3320 00
Liabilities			
Current Liabilities			
Accounts Payable		700 00	
Wages Payable		20 00	
Total Current Liabilities			720 00
Proprietorship			
Edward Mills, Proprietor, Value		2500 00	
Profit for Month	400 00		
Less Withdrawals	300 00	100 00	
Edward Mills, Capital Nov 30			2600 00
Total Liabilities and Proprietorship			3320 00

Balance Sheet

ADJUSTING ENTRIES At the end of a fiscal period, after the work sheet, the profit and loss statement, and the balance sheet have been prepared, the accounts in the ledger may be adjusted so that they will show the same information as the statements The ledger of Edward Mills, illustrated on pages 88 and 89, shows the total payments for supplies, prepaid rent, and labor expense It does not, however, show all of the expenses that are applicable to this particular period; neither does it show the net profit or the proprietorship at the end of the period.

The adjusting entries shown on the work sheet on page 92 must be recorded in the appropriate accounts. Journal entries for these adjustments are therefore prepared from the data in the Adjustments columns of the work sheet. These entries are then posted to the ledger accounts.

The adjusting entries for Reliable Repairs are shown below. It will be observed that the debits and the credits in these journal entries are the same as those in the Adjustments columns of the work sheet.

GENERAL JOURNAL PAGE 3

DATE		DESCRIPTION	POST REF	DEBIT AMOUNT	CREDIT AMOUNT
Nov.	30	Rent Expense	14	100 00	
		Prepaid Rent	5		100 00
		Transfer of expense for November, one-third of installment payment			
	30	Supplies Used	13	250 00	
		Supplies	—		250 00
		To record the cost of supplies used during the month.			
	30	Wages Expense	12	20 00	
		Wages Payable	7		20 00
		To record the labor cost accrued for the last two days of November			

Adjusting Entries

The ledger accounts affected by the adjusting entries are shown on the following page. It should be noted that each adjusting entry adds a new account in the ledger. Three new accounts, Rent Expense, Supplies Used, and Wages Payable, are added by the three adjusting entries.

Supplies

Page 4

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 1		1	40000	1949 Nov 30		3	28000
17		1	28888				

Prepaid Rent

Page 5

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 1		1	30000	1949 Nov 30		3	10000

Wages Payable

Page 7

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
				1949 Nov 30		3	2000

Labor Expense

Page 12

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 14		1	12000				
28		2	53888				
30		3	2000				

Supplies Used

Page 13

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		3	28000				

Rent Expense

Page 14

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		3	10000				

Accounts to Which Adjusting Entries Have Been Posted

CLOSING ENTRIES The information recorded in the income and expense accounts of Reliable Repairs should be brought together in a single account in order to determine the net profit or the net loss for the period. This account is called *Profit and Loss Summary* because it contains in one account all of the income, cost, and expense data. The information in the individual income and expense accounts is transferred to the profit and loss summary account by means of closing entries.

The work sheet of Reliable Repairs shows that this business has only one income account, Sales. The credit balance of this account is

transferred to the credit side of the profit and loss summary account by the following journal entry:

	30	Sales	11	1100 00	
		Profit and Loss Summary	10		1100 00
		To close the sales account.			

Closing Entry for Income

The debit balances of the various cost and expense accounts shown in the Profit and Loss Dr. column of the work sheet are transferred to the debit side of the profit and loss summary account. This may be accomplished by a compound entry in which Profit and Loss Summary is debited for the total of all expenses and the individual expenses are credited for the amounts transferred from those accounts. Such an entry is illustrated below:

	30	Profit and Loss Summary	10	700 00	
		Labor Expense	12		260 00
		Miscellaneous Expense	15		60 00
		Rent Expense	14		100 00
		Supplies Used	13		280 00
		To close the expense accounts.			

Closing Entry for Expenses

The ledger accounts to which these closing entries are posted are shown on page 98.

It is now desirable to transfer the net result of business operations from the profit and loss summary account to the proprietor's personal account. The latter account will then show the net increase or decrease in the proprietorship.

The amount of the net profit for the fiscal period, as shown by the work sheet, is $400. This amount is also the balance of the profit and loss summary account. This increase in proprietorship is transferred to the personal account by a credit to that account and a debit to the profit and loss summary account. The personal account then has a credit balance of $100, which is the net increase in the proprietorship.

Profit and Loss Summary PAGE 10

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		3	700 00	1949 Nov 30		3	1100 00

Sales PAGE 11

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		3	1100 00	1949 Nov 15		1	400 00
				30		2	700 00

Labor Expense PAGE 12

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 4		1	20 00	1949 Nov 30		3	260 00
28		2	220 00				
30		3	20 00				

Supplies Used PAGE 13

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		3	280 00	1949 Nov 30		3	280 00

Rent Expense PAGE 14

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		3	100 00	1949 Nov 30		3	100 00

Miscellaneous Expense PAGE 15

Date	Items	Post Ref	Debit Amount	Date	Items	Post Ref	Credit Amount
1949 Nov 30		2	60 00	1949 Nov 30		3	60 00

Ledger Accounts to Which Closing Entries for Income and Expenses Have Been Posted

If it is assumed that the credit balance of $100 in the personal account will probably be withdrawn in the near future, the balance may be permitted to remain in the personal account If, on the other hand, the balance is assumed to represent a relatively permanent change in capital, it may be transferred to the capital account

The journal entries required to transfer the balance of the profit and loss summary account to the personal account and the balance of the personal account to the capital account, and the accounts after the entries have been posted, are as follows:

Nov.	30	Profit and Loss Summary	10	400.00	
		Edward Mills, Personal	9		400.00
		To transfer the net profit for the month to the proprietor's personal account			
	30	Edward Mills, Personal	9	100.00	
		Edward Mills, Capital	8		100.00
		To transfer the net increase in the proprietorship for the period to the proprietor's capital account			

Edward Mills, Capital — PAGE 8

DATE		ITEMS	POST. REF.	DEBIT AMOUNT	DATE		ITEMS	POST. REF.	CREDIT AMOUNT
					Nov.	1		1	2,500.00
						30		3	100.00

Edward Mills, Personal — PAGE 9

DATE		ITEMS	POST. REF.	DEBIT AMOUNT	DATE		ITEMS	POST. REF.	CREDIT AMOUNT
Nov.	30		2	300.00	Nov.	30		3	400.00
	30		3	100.00					

Profit and Loss Summary — PAGE 10

DATE		ITEMS	POST. REF.	DEBIT AMOUNT	DATE		ITEMS	POST. REF.	CREDIT AMOUNT
Nov.	30		3	700.00	Nov.	30		3	1,100.00
	30		3	400.00					

Closing Entries for the Profit and Loss Summary and Personal Accounts and the Accounts after Posting

BALANCING AND RULING THE ACCOUNTS Since the amounts entered in temporary proprietorship accounts represent increases or decreases in the proprietorship during a particular fiscal period, they must not be mixed with amounts applicable to the following period. Such a confusion of data would make difficult the preparation of the profit and loss statement for the latter period. Therefore, after the accounts have been adjusted and closed, the debits and the credits on each side of each temporary proprietorship account are totaled. The

totals are entered on the same line, and double rules are drawn under the totals and across all columns except the Items columns. Note the sales account on page 103.

If a temporary proprietorship account has only one debit and one credit, it is not necessary to enter totals; the double lines are drawn immediately under the entries. Note the supplies used account on page 103.

When accounts are ruled with double lines, it is understood that all amounts above these lines are to be ignored in accounting for future fiscal periods.

For the convenience of the bookkeeper in using asset, liability, and proprietorship accounts, these accounts may be balanced. It is, however, unnecessary to balance accounts with a single entry (see Wages Payable, page 102) or where the items are all on one side and the pencil footing shows the balance (see Repair Equipment, page 101). To balance an account, the bookkeeper proceeds as follows:

(1) Adds the balance of the account to the smaller side. To indicate that this amount is not posted from a book of original entry, the word "Balance" is written in the Items column and a check mark is placed in the Posting Reference column.

(2) Records the totals of the two sides, which are now equal, on the same line.

(3) Rules the account as if it had been closed.

(4) Brings down the balance of the account on the side that was originally the larger. To show that this amount is the balance brought down from above and is not a new entry, the word "Balance" is written in the Items column and a check mark is placed in the Posting Reference.

After the accounts have been balanced and ruled, the ledger of Reliable Repairs appears as shown on pages 101 to 103.

THE POST-CLOSING TRIAL BALANCE The ledger of Reliable Repairs has now been adjusted, closed, and ruled. The balances of the accounts remaining open represent assets, liabilities, and proprietorship. All income and expense accounts, which served as temporary proprietorship accounts, have been closed. The amounts in these closed accounts will not be used in future reports; they may be used, however, in obtaining information regarding past increases or decreases in proprietorship. A post-closing trial balance is then prepared to make certain that the open accounts in the ledger are in equilibrium and are ready for the entries of the new fiscal period. This post-closing trial balance is shown on page 104.

Cash PAGE 1

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST. REF	CREDIT AMOUNT
1949 Nov	1		1	600.00	1949 Nov	1		1	300.00
	4		1	150.00		5		1	300.00
	15		1	400.00		14		1	120.00
	30	450.00	2	700.00 1,850.00		17		1	200.00
						25		2	120.00
						30		2	60.00
						30		2	300.00 1,400.00
						30	Balance	✓	450.00
				1,850.00					1,850.00
1949 Dec	1	Balance	✓	450.00					

Accounts Receivable PAGE 2

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1949 Nov	1	150.00	1	300.00	1949 Nov	4		1	150.00
						30	Balance	✓	150.00
				300.00					300.00
1949 Dec	1	Balance	✓	150.00					

Repair Equipment PAGE 3

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1949 Nov	1		1	1,200.00					
	2		1	1,000.00 2,200.00					

Supplies PAGE 4

DATE		ITEMS	POST. REF	DEBIT AMOUNT	DATE		ITEMS	POST. REF	CREDIT AMOUNT
1949 Nov	1		1	400.00	1949 Nov	30		3	280.00
	17		1	200.00 600.00		30	Balance	✓	320.00
				600.00					600.00
1949 Dec	1	Balance	✓	320.00					

Ledger After the Accounts Have Been Adjusted, Closed, Balanced, and Ruled

Prepaid Rent

PAGE 5

Date	Items	Post. Ref.	Debit Amount	Date	Items	Post. Ref.	Credit Amount
1944 Nov. 1		1	30000	1944 Nov. 30		3	10000
				30	Balance	✓	20000
			30000				30000
1944 Dec. 1	Balance	✓	20000				

Accounts Payable

PAGE 6

Date	Items	Post. Ref.	Debit Amount	Date	Items	Post. Ref.	Credit Amount
1944 Nov. 5		1	30000	1944 Nov. 2	700 00	1	100000
30	Balance	✓	70000				
			100000				100000
				1944 Dec. 1	Balance	✓	70000

Wages Payable

PAGE 7

Date	Items	Post. Ref.	Debit Amount	Date	Items	Post. Ref.	Credit Amount
				1944 Nov. 30		3	2000

Edward Mills, Capital

PAGE 8

Date	Items	Post. Ref.	Debit Amount	Date	Items	Post. Ref.	Credit Amount
1944 Nov. 30	Balance	✓	260000	1944 Nov. 1		1	250000
				30		3	10000
			260000				260000
				1944 Dec. 1	Balance	✓	260000

Edward Mills, Personal

PAGE 9

Date	Items	Post. Ref.	Debit Amount	Date	Items	Post. Ref.	Credit Amount
1944 Nov. 30		2	30000	1944 Nov. 30		3	40000
30		3	10000				
			40000				40000

Ledger After the Accounts Have Been Adjusted, Closed, Balanced, and Ruled — Continued

Profit and Loss Summary

PAGE 10

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1949 Nov.	30		3	700 00	19.. Nov.	30		3	1 100 00
	30		3	400 00					
				1 100 00					1 100 00

Sales

PAGE 11

DATE		ITEMS	POST REF.	DEBIT AMOUNT	DATE		ITEMS	POST REF.	CREDIT AMOUNT
1949 Nov.	30		3	1 100 00	1949 Nov.	15		1	400 00
						30		2	700 00
				1 100 00					1 100 00

Labor Expense

PAGE 12

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1949 Nov.	14		1	120 00	1949 Nov.	30		3	260 00
	25		2	120 00					
	30		3	20 00					
				260 00					260 00

Supplies Used

PAGE 13

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1949 Nov.	30		3	250 00	1949 Nov.	30		3	250 00

Rent Expense

PAGE 14

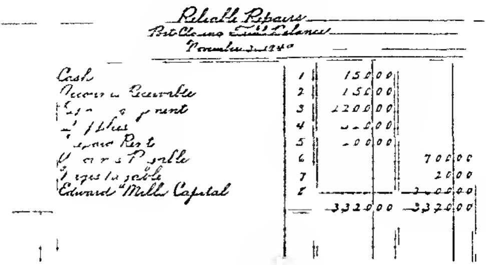
DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST REF	CREDIT AMOUNT
1949 Nov.	30		3	100 00	1949 Nov.	30		3	100 00

Miscellaneous Expense

PAGE 15

DATE		ITEMS	POST REF	DEBIT AMOUNT	DATE		ITEMS	POST. REF.	CREDIT AMOUNT
1949 Nov.	30		2	60 00	1949 Nov.	30		3	60 00

Ledger After the Accounts Have Been Adjusted, Closed, Balanced, and Ruled — Concluded



Reliable Repairs
Post Closing Trial Balance
November 30, 1940

Cash	1	150 00	
Accounts Receivable	2	150 00	
Equipment	3	2200 00	
Supplies	4	[illegible]	
Prepaid Rent	5	[illegible]	
Notes Payable	6		700 00
Wages Payable	7		20 00
Edward Mills Capital	8		[illegible]
		3320 00	3320 00

Post Closing Trial Balance

With the exception of the proprietor s accounts the items and the amounts shown in the post closing trial balance are the same as those shown in the last pair of columns on the work sheet Closing the ledger consists in consolidating all income and expense accounts for the past period with the capital and personal account balances thus setting up the new capital

THE BOOKKEEPING CYCLE This chapter and the two preceding chapters have presented the sequence of bookkeeping procedures beginning with transactions and concluding with the post closing trial balance This sequence of procedures is frequently referred to as the *bookkeeping cycle* or the *accounting cycle* It will be made more evident in subsequent chapters, which deal with further descriptions of accounting technique These formalized procedures are almost universally followed in accounting practice

It is advisable at this time to review the steps in the bookkeeping cycle An appreciation of these steps is preliminary to an understanding of accounting principles For convenience these steps are presented in eight parts as follows

1 Journalizing	Recording transactions in the journal
2 Posting	Transferring the entries in the journal to the ledger
3 Taking a trial balance	Summarizing the ledger accounts
4 Determining the necessary adjustments	Calculating accounting information not recorded currently
5 Preparing the work sheet.	Classifying information on columnar paper
6 Preparing the accounting statements	Preparing the profit and loss statement and the balance sheet from the work sheet.

7. Adjusting and closing the books.	Recording the adjusting and closing entries in the journal and posting them to the ledger; closing, ruling, and balancing the accounts.
8. Taking a post-closing trial balance.	Proving the accuracy of closing the books.

The items listed above constitute a cycle of accounting activities that are normally repeated each fiscal period. The first six steps may be repeated, without the last two steps, if it is desired to have *interim* statements without closing the books. Frequently, such statements are prepared monthly, whereas the books are closed annually. If statements are prepared monthly but the books are closed annually, the profit or the loss shown on the profit and loss statement at the end of the year will be the profit or the loss for the entire year. If the profit or the loss for the last month of the year is desired, the profit or the loss for the previous eleven months, as shown by the interim statement, must be subtracted from the profit or the loss for the entire year. In this way there are monthly cumulative statements and also the statements for the last individual month. When the books are to be closed and made ready for the new fiscal year, it is necessary to add steps 7 and 8.

Subsequent chapters will deal with extensions and modifications of these basic procedures; but these extensions and modifications will not change the fundamental nature of the eight steps here described.

QUESTIONS

1. If the same information is to be found in both the journal and the ledger, what distinguishes the two records?

2. Would posting be accomplished more effectively by two bookkeepers working together or by one bookkeeper working alone? Explain your answer.

3. Does an error in the trial balance prove that an error has been made (a) in journalizing? (b) in posting? (c) in summarizing the information recorded in the ledger?

4. In making up his reports at the end of one fiscal period, R. C. Main failed to consider his inventories of office supplies, store supplies, and coal. What effect did these mistakes have on the profit reported for the period?

5. F. H. Mason tells you that he can adjust and close his accounts more quickly by transferring an amount directly from one account to another than he can by using journal entries. Do you recommend that he make entries in the journal to adjust and close the ledger?

6. David Penn, a retail grocer, instructs his bookkeeper to keep the bookkeeping records always up to date in order that they will not have to be adjusted at the end of the fiscal period Is it possible for the bookkeeper to follow these instructions?

7 At the end of a fiscal period Edward Neal prepares a trial balance, determines the additional information needed to prepare the statements, and prepares the statements, but he does not adjust and close the ledger. What effect will the omission of adjusting and closing have on the records for the next period?

8. Frank Burke closes his ledger at the end of each month so that his capital account will show the same proprietorship as that reported on the balance sheet at the end of the month Thomas Carling prepares a profit and loss statement at the end of each month, but he does not adjust and close the ledger until the end of the year (a) Which plan do you consider preferable? (b) Will the monthly reports of each merchant contain similar information?

9 Prepare adjusting entries for Question 4 of Chapter V, page 78

PROBLEMS

1. On March 31 of the current year the trial balance of White's Self-Service Laundry was as follows

WHITE'S SELF SERVICE LAUNDRY

TRIAL BALANCE

MARCH 31, 19—

Cash	$1,420	
Prepaid Insurance	360	
Richard White Capital		$ 500
Sales		1,500
Power Expense	200	
Miscellaneous Expense	20	
	$2,000	$2 000

Data for end-of-month adjustments were as follows

Expired insurance, $30
Rent payable
  Store space, 10% of sales for month
  Laundry machines 20% of sales for month
  (Make one entry debiting Rent Expense and crediting Rent Payable.)

Instructions: (1) Record the trial balance on a ten-column work sheet.
(2) Complete the work sheet for the month of March
(3) Prepare a profit and loss statement and a balance sheet in report form from the work sheet.

(4) Record the adjusting entries in a general journal.

(5) Record the closing entries, closing the profit directly to the capital account.

2. Larry Scott is an insurance adjuster. His income consists of fees received from insurance companies for adjusting their claims. On May 1 of the current year he moved his office to a building where his rent included desk space, telephone service, and secretarial service, and he opened a new set of books.

Mr. Scott planned to maintain the following ledger accounts: Cash; Accounts Receivable; Automobile; Prepaid Rent; Supplies; Accounts Payable; Larry Scott, Capital; Larry Scott, Personal; Profit and Loss Summary; Fees; Rent Expense; Automobile Expense; Supplies Used; Miscellaneous Expense.

During the month of May Mr. Scott completed the following transactions:

May 1. Made an opening entry for the following assets and liabilities: Cash, $500; Accounts Receivable, $725; Automobile, $1,500; Supplies, $50; Accounts Payable, $60.
2. Paid three months' rent, $375.
8. Collected accounts receivable, $425.
10. Paid accounts payable in full, $60.
12. Collected accounts receivable, $300.
15. Billed fees for first half of month, $320. (Debit Accounts Receivable.)
20. Withdrew $200 cash for personal use.
24. Purchased supplies for cash, $15.
31. Billed fees for last half of month, $480.
31. Paid cash for miscellaneous expenses, $10.
31. Received an invoice for $65 for automobile expenses for the month. (Credit Accounts Payable.)

On May 31 the additional data for the adjustments were as follows:

Prepaid rent, $250.
Supplies on hand, $25.

Instructions: (1) Open ledger accounts for all of Mr. Scott's accounts. Number the accounts consecutively.

(2) Record the transactions for May in a general journal and post to the ledger.

(3) Take a trial balance of the ledger and enter it in the Trial Balance columns of a ten-column work sheet.

(4) Complete the ten-column work sheet for the month ended May 31.

(5) Prepare a profit and loss statement and a balance sheet in report form.

(6) Record the adjusting and the closing entries in the general journal and post to the ledger. Close the personal account to the capital account.

(7) Total and rule the income and expense accounts. Balance the asset, liability, and proprietorship accounts.

(8) Take a post-closing trial balance.

3. On August 1 of the current year Robert Harris opened the While-U-Wait Shoe Repair Shop. He maintained the following ledger accounts:

Cash, Store Equipment, Office Equipment, Store Supplies; Office Supplies; Prepaid Insurance, Notes Payable, Accounts Payable, Rent Payable, Salaries Payable, Robert Harris, Capital, Robert Harris, Personal, Profit and Loss Summary, Sales, Advertising, Sales Salaries, Store Supplies Used, Miscellaneous Selling Expense, Office Salaries, Rent Expense, Office Supplies Used, Insurance Expense, Miscellaneous General Expense

The following transactions took place during August

Aug 1 Invested cash, $3,500.
1 Purchased store equipment for $9,000 and office equipment for $500, giving $2,000 cash and a note payable for the balance.
2 Paid cash for advertising, $75.
3 Purchased store supplies on account, $721.80.
5 Paid cash for office supplies, $65.50.
6 Cash sales for the week, $420.75.
9 Paid cash for store supplies, $118.33.
10 Paid cash for the premium on a one year insurance policy, $120.
13 Paid cash, $310, for biweekly salaries as follows: sales salaries, $240 and office salaries, $70.
13 Cash sales for the week, $398.40.
16 Withdrew $150 for personal use.
18 Paid cash for miscellaneous selling expenses, $15.
20 Cash sales for the week, $438.50.
24 Purchased store supplies on account, $201.87.
27 Paid cash, $310, for biweekly salaries as follows: sales salaries, $240 and office salaries, $70.
27 Cash sales for the week, $486.90.
29 Paid cash for telephone, utilities, and miscellaneous general expense for the month, $75.
30 Withdrew $150 for personal use.
31 Cash sales for balance of month, $243.25.

On August 31 the additional data for the adjustments were:

Store supplies on hand, $486.
Office supplies on hand, $43.75.
Expired insurance, $10.
Rent payable, 6% of sales.
Salaries payable: sales salaries, $120, office salaries, $35.

Instructions (1) Open ledger accounts for all of the accounts of the While-U-Wait Shoe Repair Shop. Number the accounts consecutively.

(2) Record the transactions for August in a general journal and post to the ledger.

(3) Take a trial balance of the ledger and enter it in the Trial Balance columns of a ten-column work sheet.

(4) Complete the ten-column work sheet for the month ended August 31.

(5) Prepare a classified profit and loss statement and a classified balance sheet in report form.

(6) Record the adjusting and the closing entries in the general journal and post to the ledger. Do not close the personal account.

(7) Total and rule the income and expense accounts. Balance the asset, liability, and proprietorship accounts.

(8) Take a post-closing trial balance.

CHAPTER VII

ACCOUNTING FOR PURCHASES

ACCOUNTING FOR MERCHANDISING The two types of businesses most commonly found are personal service and merchandising. A third type of business, manufacturing, while of great importance and reaching immense size, is smaller in number. In the previous chapters the accounting cycle was developed with reference to a personal service business. In this and in the chapters immediately following, the accounting cycle will be developed in terms of a merchandising or a trading business.

The principal activity of a merchandising business is the buying and selling of goods. Commonly, a certain type of goods is assembled in a store for sale to customers. The merchandiser buys from various vendors the merchandise that he believes will increase his own sales.

A considerable portion of the sales price of goods is represented by their cost to the merchandiser. The difference between the cost of goods sold and the selling price is called *gross profit* or *margin*. The operating expenses of the merchandising business must be kept within this margin if the merchandiser is to show a profit. It is clear that the factors entering into the amount of the cost of goods sold are of particular importance to a merchandising business.

NEED FOR ADDITIONAL JOURNALS All the transactions of a business may be recorded in the ordinary two-column journal, which was used in the previous chapter. Transactions are usually classified, however, according to their nature, and those that recur frequently are recorded in special journals. If purchases on account are made frequently, it will be advantageous to set up a special purchases journal. If notes payable are issued infrequently, there would be no advantage in a special notes payable journal and such transactions would continue to be entered in the general journal.

The use of special journals has several advantages:

(1) The amount of space required for the record of each transaction is reduced. When transactions are recorded in chronological order in the two-column journal, a rather complete explanation of each entry must be written. When transactions are classified, however, and all those of one kind are recorded in a separate book, it is possible to avoid repeating much information that is the same in all cases. The record can therefore be made much briefer, and a great amount of labor can be eliminated in journalizing the transactions.

(2) It facilitates the division of labor necessary in a large organization If the transactions are recorded in different books of original entry one clerk may record nothing but sales another nothing but purchases another nothing but cash receipts and still another, nothing but cash payments

(3) The number of postings to ledger accounts is materially reduced For example instead of posting individual items to the credit of the sales account one posting of the total amount is made at the end of the month Since special journals are restricted to transactions of a single type it is possible to post the total of each special journal

An analysis of the transactions in the typical merchandising business shows that the following transactions occur most frequently and therefore call for special journals

(1) Cash Receipts	Cash Receipts Journal
(2) Cash Payments	Cash Payments Journal
(3) Sales on Account	Sales Journal
(4) Purchases on Account	Purchases Journal

While most of the transactions may be recorded in one of the special journals there will remain a few that must still be recorded in the general journal described in the previous chapter

CREDIT PERIODS AND CASH DISCOUNTS If a merchandiser is allowed a period of time to pay for goods purchased he is able to increase the volume of his business because he can make payment for these goods out of the proceeds of his resale of the merchandise Such a period is called a *credit period* The time of credit specified in a transaction is known as the *credit terms* of that transaction Credit transactions are numerous in the conduct of businesses because they tend to increase the total volume of business of the community The granting of credit also makes payment more convenient for the buyer

In extending credit to buyers businessmen make the credit terms definite in order to promote better understanding of the arrangement The time allowed for payment is therefore made a part of the purchase or the sale transaction The time of payment may be the first of the following month 30 days hence 60 days or whatever time has become the prevailing practice If goods are sold by the purchaser in a short time the credit period tends to be short in slower moving goods it tends to be longer

The expression n/30 which is read net 30 days means that payment is to be made in 30 days n/60 that payment is to be made in 60 days To encourage payment before the expiration of the credit period creditors have developed the practice of offering a special inducement in the form of a cash discount for early payment Thus the expression 2/10 n/60 means that while the credit period

established by custom of the trade is 60 days, the debtor may deduct 2% of the amount of the bill if payment is made in 10 days. This deduction is known as a *cash discount.*

For example, assume that on October 12 Richard Stone orders from William Davis goods amounting to $500. He receives Davis' invoice, dated October 14, providing terms of 2/10, n/60. Stone can send Davis a check for $490 in full payment of the bill any time before October 24. This early payment earns Stone $10. If he wishes to wait the full credit term before paying, he may pay Davis $500 on December 13. Discounts received from creditors for early payments are known as *purchases discounts.*

If the terms of sale call for payment in the following month, incentive for early payment may be expressed "2/10 eom." This means that if the bill is paid during the first ten days following the end of the month (eom), the purchaser is entitled to a 2% cash discount. This cash discount is designed to fit the practices of buyers who wish to accumulate the bills of a month and make payment early in the following month. Payments tend to be concentrated in the first ten days of the month instead of being spread throughout the month.

TREATMENT OF CASH DISCOUNTS In treating cash discounts, most accountants consider the invoice price and the credit terms as business conditions not requiring adjustment. If an invoice is paid within the discount period and the amount paid is therefore less than the total of the invoice, the purchases discount is recorded as a part of the entry. This discount represents a financial earning because the debtor was able to pay before the end of the period allowed him.

If James Hiatt, on May 3, purchases goods from Cold Air Corporation for $750, terms 2/10, n/30, his entry for the purchase in general journal form is:

May	3	Purchases....................	750	00		
		Accounts Payable............			750	00
		Purchased merchandise from Cold Air Corporation 2/10, n/30................				

If Hiatt is able to pay in 10 days, he is granted a 2% cash discount for prompt payment. Assuming he paid this bill on May 12, his entry in general journal form would be:

May	12	Accounts Payable.............	750	00		
		Purchases Discount..........			15	00
		Cash........................			735	00
		Paid Cold Air Corp. bill of May 3 less discount of 2%...				

The credit to Purchases Discount is a credit to an income account and will increase Hiatt's net income for the period by $15.

The earning made in taking advantage of cash discounts is considerably more than the interest cost on current capital. Terms of 2/10, n/60 mean a saving of $21 on a $1,200 invoice, compared with an interest cost of $10 on a like amount borrowed at 6% for a 50-day period

PURCHASING OPERATIONS When an order for merchandise is placed with a vendor, it should be in writing so that no misunderstanding may arise The list of goods to be purchased may be written on an order blank furnished by the vendor or the buyer may use his own purchase order blank. A purchase order of Hiatt Home Appliances issued to Cold Air Corporation for refrigerators, a deep freezer, and air-conditioners, as listed, is illustrated below:

PURCHASE ORDER

HIATT HOME APPLIANCES

James Hiatt

[illegible] OLYMPIC BOULEVARD BEVERLY HILLS CALIFORNIA

MARK ORDER No. ON INVOICE AND ON ALL PACKAGES

Order No. 561

Cold Air Corporation
70 Mission Boulevard
St. Louis, Missouri

Date April 24, 1950

Terms 2/10,n/30

Ship Via Overland Trucking Co.

PLEASE ENTER OUR ORDER FOR THE FOLLOWING

QUANTITY	DESCRIPTION	PRICE
2	R 49 Refrigerators	200.00
1	R 47 Refrigerator	125.00
1	DF 25 Deep freezer	150.00
3	AC 4 Air conditioners	25.00

DELIVER NO GOODS WITHOUT A WRITTEN ORDER ON THIS FORM

HIATT HOME APPLIANCES

By James Hiatt

Purchase Order

This purchase order gives the vendor specific authority to deliver the merchandise listed. A duplicate copy is also evidence for James Hiatt of exactly what he has ordered.

The purchaser usually receives an invoice from the creditor before the goods are delivered. An *invoice* is an itemized statement of goods bought, and should contain the names and the addresses of both the buyer and the seller, the date of the sale, the terms, the method of shipment, and the quantities, descriptions, and prices of the mer-

chandise. It may contain other information. An invoice received from the Cold Air Corporation for the goods listed on the purchase order of Hiatt Home Appliances is shown below:

COLD AIR CORPORATION

Air Conditioners Refrigerators Deep Freezers

70 MISSION BOULEVARD . . . . ST. LOUIS, MISSOURI

Customer's Order No. & Date 561   Refer to Invoice No. 1149-15

Requisition No.

Contract No.   Invoice Date May 3, 1950

Vendor's Nos.

SOLD TO Hiatt Home Appliances
9700 Olympic Boulevard
Beverly Hills, California

Shipped to and Destination Hiatt Home Appliances
Beverly Hills, California

Date Shipped May 3, 1950   From St. Louis, Mo.   Prepaid or Collect?

Car Initials and No. How Shipped and Route Overland Trucking Co.   F. O. B.   Prepaid

Terms 2/10,n/30

FOR CUSTOMER'S USE ONLY

Register No. | Voucher No.

F. O. B. Checked

Terms Approved | Price Approved R. K.

Calculations Checked C.K.

Transportation

Freight Bill No. | Amount

Material Received 5/6 19 50 T.S.C. Rec. CC.

Date Signature Title

Satisfactory and Approved

Adjustments

Accounting Distribution

Audited G. H. S. | Final Approval O. K.

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
2✓	R 49 Refrigerators	200.00	400.00✓
1✓	R 47 Refrigerator	125.00	125.00✓
1✓	DF 25 Deep freezer	150.00	150.00✓
3✓	AC 4 Portable air conditioners	25.00	75.00✓
			750.00✓

Invoice

The invoice illustrated above is a standard form recommended by the National Association of Purchasing Agents. It is 8½ inches by 7 inches and provides three separate areas: (1) upper left for details regarding the purchase entered by the seller; (2) upper right for checking by the purchaser when goods are received; and (3) the items in the order with price and amount.

Terms, quantities, prices, and other information indicated on the invoice should be compared with the corresponding items on the copy of the purchase order. When the goods arrive, they should be counted and inspected. Counting and inspection are ordinarily performed by the receiving department. The receiving department may check the quantities received against those indicated on the invoice, or it may give an independent report of the quantities received to the purchasing agent. In this case the report will be clipped to the invoice. Invoices are ordinarily recorded in the purchases journal as they are received, although the goods may not be received until later. If, upon receipt of goods, errors in shipments are found, they can be corrected by credit memorandums.

THE PURCHASES JOURNAL

A simple form of purchases journal is illustrated on page 115. Since nothing but purchases on account are entered in this book, the purchases account need not be debited for each purchase but can be debited for the total. This same total is posted to the credit of Accounts Payable. Purchases made for cash are recorded in the special cash payments journal. Cash transactions will be described in Chapter IX.

The purpose of the purchases journal is to record the purchases made and the obligations due the creditors from whom the purchases were made. The record of purchases is known by various names, such as the *purchases journal*, the *purchases book*, the *purchases register*, the *purchases record*, and the *invoice record*. Regardless of its name, it is in reality a journal, since transactions are recorded in it so that their effect on accounts will be shown.

The form of the purchases journal depends to a considerable degree upon the size and the nature of the business and the amount of information the owner desires concerning his purchases. The information usually desired concerning purchases can be obtained from a form such as that shown at the top of the following page.

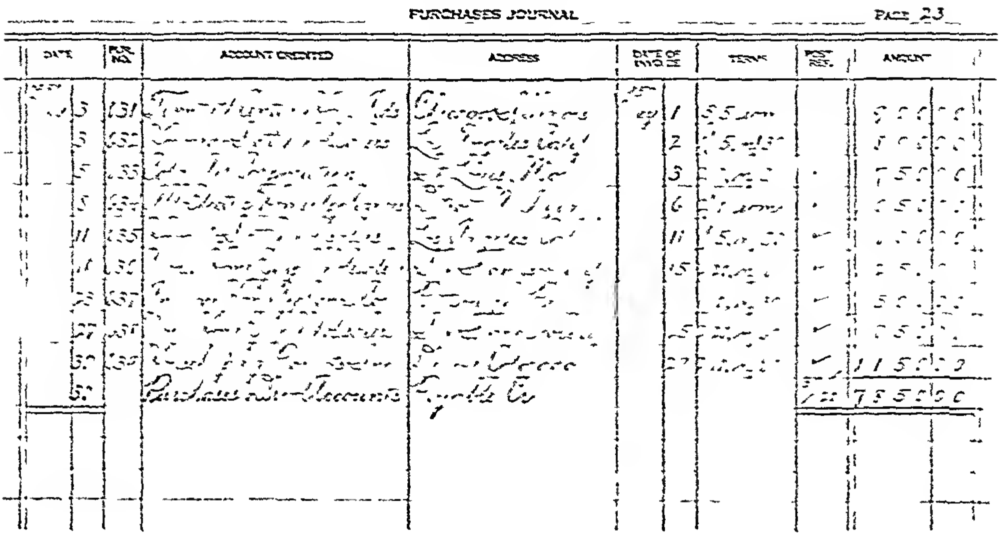
The use of the columns is in the main apparent. The column headed Pur. No. gives the number of the purchase invoice. The invoices are numbered consecutively and, after the entries have been recorded in the purchases journal, are filed so as to be available for future reference. The number entered in the Pur. No. column serves to identify the entry with the purchase invoice to which it pertains in case a future comparison is desired. Such a comparison would be made if a creditor objected to the amount paid him or to the terms upon which he was paid.

The information entered in the columns headed "Date of Invoice" and "Terms" indicates when an invoice will be due. The date of the invoice is normally a few days before the date of the entry.

The purpose of the column headed "Post. Ref." will be discussed in later paragraphs.

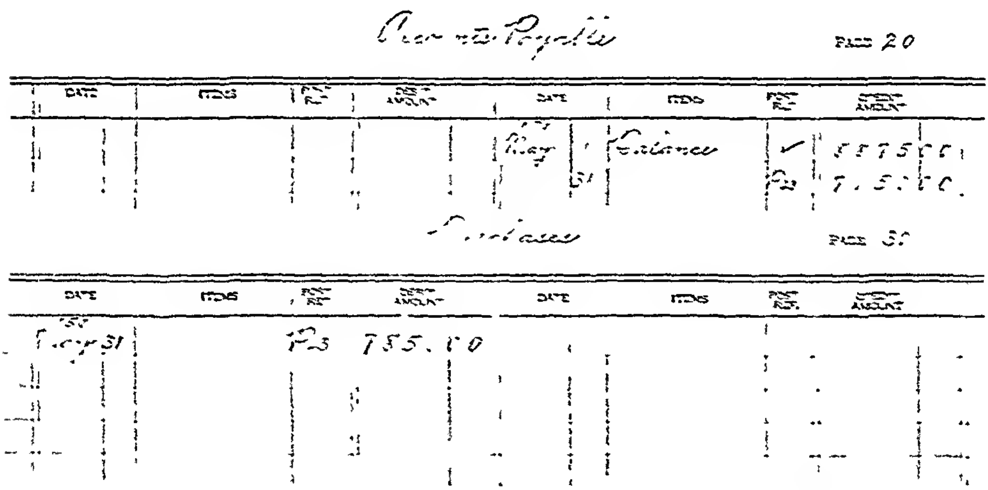
POSTING THE TOTAL OF THE PURCHASES JOURNAL

The total of the purchases on account for Hiatt Home Appliances for the month of May is the total of the amount column in the purchases journal on page 115. This amount, \$7,850, must be posted to the debit of the account Purchases because purchases are a cost of doing business and therefore represent a decrease in proprietorship. Also, \$7,850 must be credited to Accounts Payable because this total has been added to the amount owed to creditors.



Purchases Journal After Posting

The accounts payable account and the purchases account, after the posting of the purchases journal, are shown below:



Accounts Payable and Purchases Accounts in the General Ledger

The source of the amount posted to Accounts Payable and Purchases is indicated by writing "P23" in the posting reference column of the account. The letter "P" is used to indicate that the posting was made from the purchases journal, and "23" is the page number of the purchases journal for May.

In the purchases journal the page numbers of the accounts to which the total was posted are written in the posting reference column on a line with the amount. The two numbers are written in one space and are separated by a diagonal line.

CONTROLLING AND SUBSIDIARY ACCOUNTS The accounts payable account shows the total amount owed to creditors but it does not show how much is owed to each creditor and when each amount is due. It is customary to maintain a separate account for each creditor to which the details of the transactions with that creditor are posted. These accounts are maintained in a separate ledger, known as the *accounts payable ledger*.

When more than one ledger is used, the ledger containing the balance sheet and profit and loss statement accounts is known as the *general ledger*. Ledgers containing accounts that show details given in one account in the general ledger are known as *subsidiary ledgers* and the accounts in such ledgers are known as *subsidiary accounts*. One account in the general ledger that shows in total the amounts shown in a number of subsidiary accounts in a subsidiary ledger is known as a *controlling account*.

Therefore, the accounts payable account in the general ledger of the Hiatt Home Appliances is a controlling account, the accounts payable ledger is a subsidiary ledger, and the accounts in the accounts payable ledger are subsidiary accounts.

POSTING TO THE SUBSIDIARY LEDGER Each item in the purchases journal is posted to the credit of the appropriate account in the accounts payable ledger. Postings are made daily so that the current balance of any creditor may be readily known. The ruling of the accounts payable ledger is planned to show the balance at all times. Provision is also made in the heading for the name and the address of the creditor. The date of the invoice and the terms of each invoice are entered in the Items column.

The completion of the posting to each creditor's account is indicated by writing the letter "P" and the page number of the purchases journal in the posting reference column of the account. The creditors' accounts are ordinarily arranged alphabetically in a loose-leaf ledger. As new accounts may be inserted at any point, the pages are not numbered. A check mark is therefore used in the posting reference column of the purchases journal to indicate the completion of the posting of each item.

At the end of May the accounts payable ledger of Hiatt Home Appliances shows the balances at the beginning of the month and the items posted during the month. The accounts payable ledger then appears as shown on pages 117 and 118.

NAME All-Electric Home Appliances
ADDRESS Detroit, Michigan

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
1955						
Apr.	20	Apr. 17; 2/10 e.o.m.	P22		2,550 00	2,550 00
May	5	May 6; 2/10 e.o.m.	P23		1,050 00	3,600 00

NAME American Home Appliances Co.
ADDRESS Pittsburgh, Pennsylvania

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
May	25	May 19, 2/10, n/30	P23		500 00	500 00

NAME Cold Air Corporation
ADDRESS St. Louis, Missouri

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
1955						
Apr.	29	Apr. 29, 2/10, n/30	P22		1,950 00	950 00
May	5	May 3, 2/10, n/30	P23		750 00	2,700 00

NAME Housekeeping Products Inc.
ADDRESS Denver, Colorado

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
1955						
May	30	May 29, 2/10, n/30	P23		1,150 00	1,150 00

NAME Howard-Scott Wholesalers
ADDRESS Los Angeles, California

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
1955						
May	3	May 2, 1/15, n/30	P23		800 00	800 00
	11	May 11, 1/15, n/30	P23		600 00	1,400 00

NAME Model Home Equipment Wholesalers
ADDRESS San Francisco, California

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
1955						
May	16	May 15, 2/20, n/60	P23		1,250 00	1,250 00
	27	May 25, 2/20, n/60	P23		850 00	2,100 00

NAME Radio-Television Distributors
ADDRESS New York, New York

DATE		ITEMS	POST REF.	DEBIT	CREDIT	BALANCE
1955						
Apr.	7	Apr. 5, net 60	P22		2,475 00	2,475 00

Accounts Payable Ledger

NAME Twentieth Century Home Aids
ADDRESS

DATE		POST REF	DEBIT	CREDIT	BALANCE
1950 Apr 15	[illegible]	P 22		1600 00	1600 00
May 3	[illegible]	P 23		900 00	2500 00

Accounts Payable Ledger

After the posting has been completed a schedule of accounts payable may be prepared in the following form

Watt Home Appliances
Schedule of Accounts Payable
May 3 [illegible]

All Electric Home Appliances	3900 00	
American Home Appliances Co	500 00	
Cold Air Corporation	2700 00	
Housekeeping Inc	1150 00	
Howard Scott's Wholesalers	1400 00	
Modern Equipment Wholesalers	2100 00	
Radio Television Distributors	2475 00	
Twentieth Century Home Aids	2500 00	
Total Accounts Payable		16725 00

Schedule of Accounts Payable

This schedule shows the balance in each creditor's account and the total of the accounts payable Since the same amounts are posted as a total to the accounts payable account in the general ledger and individually to the creditors accounts in the accounts payable ledger, the total of the schedule of accounts payable should equal the balance of the accounts payable account in the general ledger If there is a difference, the error should be discovered before the work is continued

Since the balance of the accounts payable account is equal to the sum of the balances of the accounts in the accounts payable ledger, it is apparent that the creditors' accounts might be used in the general ledger instead of the accounts payable account But the use of the controlling account Accounts Payable and the subsidiary ledger is generally recommended Having the creditors' accounts in a separate ledger facilitates posting Furthermore the use of the controlling account removes detail from the general ledger and simplifies the preparation of the trial balance and the accounting statements

PURCHASES RETURNS AND ALLOWANCES When goods purchased on account are returned to a creditor or when an allowance from the price of goods purchased on account is obtained, the purchaser usually receives from the creditor a form known as a *credit memorandum* showing the amount of the credit given. A typical credit memorandum is illustrated below:

CREDIT MEMORANDUM

RADIO-TELEVISION DISTRIBUTORS
345 Tenth Avenue
NEW YORK

No. 21 May 20, 1950
Hiatt Home Appliances
9700 Olympic Boulevard
Beverly Hills, Calif.

WE CREDIT YOUR ACCOUNT AS FOLLOWS:

2	#345	Television Sets returned	375.00	750.00

Credit Memorandum

When the buyer records the credit that has been given him by means of a credit memorandum, he must debit the accounts payable account in the general ledger and the creditor's account in the accounts payable ledger. He might credit Purchases, but it is ordinarily considered better to credit an account known as *Purchases Returns and Allowances*. When this plan is followed, the books show the total purchases and the total credits received, information that may be of value in the planning of future purchases.

On May 22, Hiatt Home Appliances received a credit memorandum for $750 for merchandise returned to Radio-Television Distributors, a creditor. The entry could be recorded in the general journal as:

May	22	Accounts Payable–Radio-Television Distributors	20/✓	750 00	
		Purchases Returns and Allowances	32		750 00
		Received credit for goods returned			

General Journal Entry for a Purchases Return

Note that the debit is posted both to the accounts payable account, which appears on page 20 of the general ledger, and to the creditor's account in the subsidiary ledger. The double posting is indicated by the page number of the account in the general ledger and a check mark for the posting to the subsidiary ledger. After the posting has been

completed, the accounts payable account and the creditor's account appear as follows

Accounts Payable — PAGE 20

DATE	ITEMS	[illegible]	[illegible]	DATE	ITEMS	[illegible]	[illegible]
1951 May 31		J12	750 00	1951 May 1	Balance	✓	1875 00

NAME [illegible] Television Distributors
ADDRESS New York, New York

DATE	ITEMS	[illegible]	DEBIT	CREDIT	BALANCE
1951 Apr.	[illegible]	P22		2475 00	2475 00
May	[illegible]	J27	750 00		1725 00

Accounts Payable Account and Creditor's Account After the Posting of a Return

If such transactions are frequent, a special column may be provided in the general journal so that the debits to the accounts payable account can be posted as a total. Sometimes a separate journal, termed a *purchases returns and allowances journal*, is used to record these transactions. Such a journal is illustrated below:

PURCHASES RETURNS AND ALLOWANCES JOURNAL — PAGE 6

DATE	ACCOUNT DEBITED	EXPLANATION	[illegible]	AMOUNT
1951 July 6	Elliott Paint Products	July 1, Return	✓	69 75
12	Standard Paints Inc.	July 8, Allowance	✓	45 00
15	Watson Paint Company	July 11, Allowance	✓	20 00
21	Brandon Paint Store	July 17, Return	✓	16 20
27	Sanders Paint Company	July 22, Return	✓	36 50
31	Accounts Payable Dr., Purchases Returns and Allowances Cr.		22/[illegible]	187 45

Purchases Returns and Allowances Journal

The individual items in the Amount column are posted frequently, usually daily, to the debit of the creditors' accounts in the accounts payable ledger. At the end of the month the total of the Amount column is debited to Accounts Payable and is credited to Purchases Returns and Allowances in the general ledger.

ACCOUNTING FOR OTHER THAN MERCHANDISE PURCHASES In the course of its operations a business buys on account many items in addition to merchandise. It may, for example, buy store equipment, office equipment, store supplies, or office supplies. These items should not be debited to the purchases account because they

do not represent the purchase of merchandise for sale. When a purchases journal similar to that illustrated on page 115 is used, the purchases of items other than merchandise may be recorded in the general journal in the following manner:

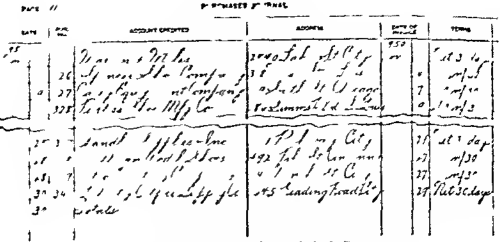
Jan.	5	Store Equipment	7	500 00	
		Accounts Payable—Davis Equipment Co.	[illegible]		500 00
		Purchased store equipment from			
		Davis Equipment Co.			

General Journal Entry for a Purchase of Equipment

Note that the credit is posted both to the accounts payable account in the general ledger and to the creditor's account in the subsidiary ledger. The double posting is indicated by the page number of the account in the general ledger and a check mark for the posting to the subsidiary ledger.

When the purchases of goods other than merchandise are at all frequent, it is ordinarily desirable to use a purchases journal with special columns similar to the one illustrated on pages 122 and 123. This journal is exactly the same as the one illustrated on page 115 through the first money column except that this money column is headed "Accounts Payable Cr." Special columns are also provided for the debits. For items not purchased frequently for which special columns are not provided, general ledger account and amount columns are given at the extreme right.

When a purchase on account is recorded, the amount is written in the Accounts Payable Cr. column. The same amount is also written in one of the debit columns, or if a column is not provided for the item purchased, the account title is written in the account column at the right and the amount is entered in the amount column at the extreme right. At frequent intervals, usually daily, throughout the month the amounts in the Accounts Payable Cr. column are posted to the creditors' accounts in the accounts payable ledger. At the end of the month the book is totaled and ruled in the manner illustrated. The total of the Accounts Payable Cr. column is posted to the credit of the accounts payable account in the general ledger. The totals of the Purchases Dr., Store Supplies Dr., and Office Supplies Dr. columns are posted to the debit of the appropriate accounts in the general ledger. Each individual amount in the General Ledger Amount column is posted to the appropriate account in the general ledger. The posting of the individual amounts to the accounts payable ledger is indicated



Columnar Purchases Journal, Left Page

by a check mark in the posting reference column. The posting of each of the column totals is indicated by the page number written in parentheses immediately below the column total. The posting of the individual amounts in the General Ledger Dr. column is indicated by the general ledger page number in the posting reference column. Since the amounts in this column are posted separately, the total of the column is not posted. A check mark is therefore placed below this total to indicate that it has been properly taken care of.

If credit is received frequently because of the return of or an allowance on goods other than merchandise, special columns may be added to the purchases returns and allowances journal illustrated on page 120 to take care of such entries. If such entries are rare, they may be recorded in the general journal.

USING PURCHASES INVOICES AS A PURCHASES JOURNAL Sometimes, instead of using one of the forms of purchases journal illustrated in this chapter, a business has its purchases invoices bound together and uses them as a purchases journal. When this is done, the total of each invoice is posted direct to the creditor's account in the subsidiary ledger. At the end of the month an adding machine list may be made of all the purchases invoices. If some of the purchases are for goods other than merchandise, separate adding machine lists are made for each kind of purchase. An entry is then made in the general journal debiting the appropriate general ledger accounts and crediting the accounts payable account. For example, if the adding machine lists show purchases of merchandise, \$6,285, of office supplies, \$230, of store supplies, \$315, and of office equipment, \$550, the general journal entry would be as follows:

PURCHASES JOURNAL — PAGE 11

POST. REF.	ACCOUNTS PAYABLE CR.	PURCHASES DR.	STORE SUPPLIES DR.	OFFICE SUPPLIES DR.	GENERAL LEDGER DR. ACCOUNT	P. R. REF.	AMOUNT
✓	25 50			25 50			
✓	597 25	597 25					
✓	220 00				Store Equipment	5	220 00
✓	622 50	622 50					
✓	44 13		44 13				
✓	1062 75	1062 75					
✓	75 00				Advertising Supplies	10	75 00
✓	33 45			33 45			
	9652 40	9157 55	97 60	52 25			315 00
	(20)	(30)	(8)	(9)			(✓)

Columnar Purchases Journal, Right Page

June	30	Purchases....	6,285 00	
		Office Supplies................	230 00	
		Store Supplies................	315 00	
		Office Equipment..............	550 00	
		Accounts Payable..........		7,380 00

While this method saves time in recording in the purchases journal, it is not recommended because invoices from different companies may be of different sizes and shapes and are clumsy and inconvenient for this purpose. Reference to invoices is also more time-consuming in case information regarding purchases is desired.

QUESTIONS

1. Explain how an invoice can be both a purchases invoice and a sales invoice.

2. What business paper described in this chapter:
   (a) Facilitates but does not represent an accounting transaction?
   (b) Is used as a basis for a bookkeeping entry?

3. Are credit transactions numerous in the conduct of businesses? Why?

4. Paul J. Vollmar, a wholesaler, buys merchandise from forty different creditors. If he kept accounts with each creditor in his general ledger, how many additional items would appear in his trial balance? Name some other disadvantages of keeping creditors' accounts in the general ledger.

5. Donald Calvin, C.P.A., advised William Given, a retailer, to use a controlling account and a subsidiary ledger for his accounts with creditors. Given thinks this will double the amount and cost of his bookkeeping. Is this correct? Explain.

6 In one month, the bookkeeper for Johnson and White makes the following errors in the purchases journal (a) He records a purchase of $100 as $10, (b) he records a purchase from the Atlas Mills as a credit to the account of American Mills, (c) he posts an entry of $60 as $600, and (d) he makes an error of $1,000 in totaling the amount column of the purchases journal When will these errors be discovered?

7 Johnson and White wholesale grocers purchase two typewriters on account Where should this transaction be entered if Johnson and White use a purchases journal similar to the one illustrated on page 115? Explain

PROBLEMS

1 During September of the current year Kyle s of Westwood completed the following transactions

Sept 3 Purchased merchandise on account from Daytime Apparel, Inc, Burbank $310 invoice dated September 1, terms, 5%, 10 eom.
4 Purchased office supplies on account from the Smith Supply Co, Los Angeles $35 invoice dated September 3, terms 30 days
8 Purchased merchandise on account from Harnetts' of Hollywood, Los Angeles $100 invoice of September 5, terms, 3%, 10 eom
10 Purchased merchandise on account from Sporting Togs, Beverly Hills $210, invoice of September 8, terms, 2%, 10 eom
12 Purchased office equipment on account from the Franklin Equipment Co Westwood $175 invoice dated September 10, terms, 30 days
13 Purchased merchandise on account from Daytime Apparel, Inc, $180 invoice of September 12 terms, 5%, 10 eom
16 Purchased merchandise on account from Harnetts' of Hollywood, $235 invoice of September 13, terms, 3%, 10 eom
16 Purchased merchandise on account from Hats by Beverly, Hollywood $240 invoice of September 15 terms, 1%, 10 eom
23 Purchased merchandise on account from Florabell Frocks, Santa Monica $300, invoice of September 20, terms 2%, 20 days
23 Purchased store supplies on account from Marshall Supply Co, Westwood $45 invoice of September 23, terms, 30 days
27 Purchased merchandise on account from All-Around Clock Coats, Bellflower, $215 invoice of September 25, terms, 2%, 15 days
27 Purchased merchandise on account from Glamour Gowns Los Angeles, $125, invoice of September 25, terms, 4%, 15 days
27 Purchased merchandise on account from Daytime Apparel Inc, $150, Invoice of September 26, terms 5%, 10 eom

Instructions (1) Record the above transactions in a purchases journal similar to the one illustrated on page 115 and in a general journal

(2) Open the following accounts in the general ledger, using the page numbers indicated

Office Equipment	Page 10	Accounts Payable	Page 20
Office Supplies	Page 16	Purchases	Page 30
Store Supplies	Page 17		

Also open the following accounts in the accounts payable ledger: All-Around Clock Coats; Daytime Apparel, Inc.; Florabell Frocks; Franklin Equipment Co.; Glamour Gowns; Harrietts' of Hollywood; Hats by Beverly; Marshall Supply Co.; Smith Supply Co.; Sporting Togs.

(3) Post from the two journals to the accounts payable ledger and the general ledger.

(4) Prepare a schedule of accounts payable.

2. During November of the current year Elliott Moran, owner of an electrical appliances shop, completed the following transactions:

Nov. 1. Purchased merchandise on account from Stratton Manufacturing Co., Boston, $525; invoice dated October 30; terms, 1%, 10 eom.

5. Purchased merchandise on account from Decker Electric Co., Boston, $450; invoice dated November 4; terms, 5%, 10 days.

6. Received a credit memorandum for $25 from Stratton Manufacturing Co. for the return of merchandise.

8. Purchased office equipment on account from the Dayton Equipment Co., Lynn, $340; invoice dated November 6; terms, 30 days.

9. Purchased merchandise on account from Moore & Hardy, Fall River, $150; invoice dated November 8; terms, 5%, 10 eom.

12. Received a credit memorandum for $50 from Dayton Equipment Co. for the return of a part of the equipment purchased on November 8.

14. Purchased store supplies on account from H. R. Browning, 210 Main St., $65; invoice dated November 12; terms, 30 days.

15. Purchased merchandise on account from Harris Appliances, Worcester, $415; invoice dated November 14; terms, 1%, 20 days.

16. Received a credit memorandum for $10 from H. R. Browning for the return of store supplies.

18. Purchased office supplies on account from Crane & Kline, 416 Broad St., $45; invoice dated November 16; terms, 30 days.

19. Purchased merchandise on account from Stratton Manufacturing Co., $375; invoice dated November 18; terms, 2%, 10 eom.

21. Received a credit memorandum for $15 from Crane & Kline for the return of office supplies.

25. Purchased merchandise on account from Decker Electric Co., $600; invoice dated November 23; terms, 4%, 10 eom.

26. Purchased merchandise on account from Moore & Hardy, $235; invoice dated November 25; terms, 3%, 10 eom.

Instructions: (1) Record the above transactions in a purchases journal similar to the one illustrated on pages 122 and 123 and in a general journal.

(2) Open the following accounts in the general ledger, using the page numbers indicated:

Office Equipment	Page 10	Accounts Payable	Page 20
Office Supplies	Page 16	Purchases	Page 30
Store Supplies	Page 17	Purchases Returns and Allowances	Page 31

Also open the following accounts in the accounts payable ledger: H. R. Browning; Crane & Kline; Dayton Equipment Co.; Decker Electric Co.; Harris Appliances; Moore & Hardy; Stratton Manufacturing Co.

(3) Post from the two journals to the accounts payable ledger and the general ledger.

(4) Prepare a schedule of accounts payable.

3 During July of the current year Taste-Rite Bakery completed the following transactions

July 2 Purchased merchandise on account from Bakers' Supplies Co, Knoxville, $75, invoice dated July 1, terms, 2%, 10 eom
3 Purchased office supplies on account from Clark Bros, 438 Main St, $30 invoice dated July 2 terms 10 days
6 Purchased merchandise on account from Prepared Flours, Inc Nashville, $450, invoice dated July 3 terms, 1%, 5 eom
8 Received a credit memorandum for $25 from Prepared Flours, Inc for the return of merchandise
9 Purchased merchandise on account from Bakers' Supplies Co, $50 invoice dated July 5, terms, 2% 10 eom
10 Purchased store equipment on account from Mason Equipment Co, 806 Broadway $275 invoice dated July 9 terms, net 30 days
10 Received a credit memorandum for $25 from Bakers' Supplies Co for the return of merchandise
17 Purchased merchandise on account from Hi-Yeast Co, Memphis $15, invoice dated July 17 terms 2%, 15 days
19 Received a credit memorandum for $5 from Hi-Yeast Co for the return of merchandise
20 Purchased merchandise on account from Prepared Flours, Inc, $125 invoice dated July 19, terms 1%, 5 eom
21 Purchased store supplies on account from Hedges & Walker, 1268 Elm St $55, invoice dated July 21 terms net 30 days
22 Received a credit memorandum for $10 from Prepared Flours, Inc for the return of merchandise
23 Purchased merchandise on account from Central Nut and Fruit Products, Nashville $250 invoice dated July 22 terms, 2%, 10 days
26 Purchased merchandise on account from Bakers Supplies Co, $60, invoice dated July 22, terms, 2%, 10 eom
27 Received a credit memorandum for $15 from Central Nut and Fruit Products for the return of merchandise
31 Purchased merchandise on account from Creamery Products Chattanooga $200 invoice dated July 30 terms 2%, 10 eom

Instructions (1) Record the above transactions in a purchases journal similar to the one illustrated on pages 122 and 123 and in a purchases returns and allowances journal similar to the one illustrated on page 120

(2) Open the following accounts in the general ledger, using the page numbers indicated

Store Equipment	Page 11	Accounts Payable	Page 20
Office Supplies	Page 16	Purchases	Page 30
Store Supplies	Page 17	Purchases Returns and Allowances	Page 31

Also open the following accounts in the accounts payable ledger Bakers' Supplies Co; Central Nut and Fruit Products, Clark Bros; Creamery Products; Hedges & Walker, Hi-Yeast Co, Mason Equipment Company, Prepared Flours, Inc.

(3) Post from the two journals to the accounts payable ledger and the general ledger

(4) Prepare a schedule of accounts payable

CHAPTER VIII

ACCOUNTING FOR SALES

IMPORTANCE OF SALES Sales are the first item on the profit and loss statement and are of first importance in the operation of a business. Sales measure the effectiveness of a business enterprise in meeting the needs of its customers. The sales figure is commonly quoted in business news articles and is compared with sales of a previous period. An increase in sales is ordinarily a good omen and indicates a favorable trend in the fortunes of a business.

The number of sales transactions to be recorded in any business is perhaps largest next to the number of cash transactions. Cash sales are commonly recorded on a machine and only the total for the day is entered in a journal. Since cash sales involve not only a credit to Sales but also a debit to Cash, the journal record of cash sales is deferred until the next chapter. In this chapter emphasis will be placed on the recording of sales on account.

SALES AND PROFITS In the personal service type of business, net profit was determined by deducting the total operating expenses from sales. This net profit figure included compensation for the personal services of the proprietor and amounted to a considerable percentage of sales. In the problems given in Chapters V and VI, the net profit sometimes exceeded fifty per cent of sales.

In the merchandising type of business the largest single element in the sales price is the cost of goods sold. It follows then that net profit is, in such a business, a much smaller part of the sales figure. The capable merchandiser gives as much attention to the kind and quality of his merchandise as he does to selling and general operations. For this reason the profit and loss statement of a trading business first shows gross profit and then shows net profit from operations. Gross profit, the intermediate stage between sales and net profit, shows the margin in dollars within which business operating expenses must be kept to show a profit.

CREDIT TERMS AND SALES DISCOUNTS In the retail trade it is usual for those who buy on account to pay once a month for all purchases made during the previous month. In other lines of business, payments are made in accordance with the terms of sale, which are

usually fixed by the custom of the trade The customary terms may be changed by an agreement between the seller and the purchaser

Since Hiatt Home Appliances sell articles of considerable cost it finds special credit terms useful All sales on account are made on terms of 2/10 n 30 Mr Hiatt gives customers 30 days in which to pay He also gives a 2 % discount for cash in 10 days Such a discount granted to a customer is known as a *sales discount*

SELLING OPERATIONS The method of handling sales like the method of handling purchases varies greatly, depending upon the organization of the business Every sale is made in response to an order received from a customer An order given a retail store is usually oral an order given a manufacturing a wholesale or a mail-order business is ordinarily written

In a retail business a *sales ticket* is usually prepared for a sale on account This sales ticket is made in duplicate or triplicate One copy is given to the customer one copy is sent to the accounting department for use as the basis of an entry in the sales record and one copy may be used as the salesman s personal record of his sales or for other purposes as the organization of the business requires

In a manufacturing a wholesale or a mail order business a written order is received from a customer or from the salesman who obtained the order from the customer After the order has been approved by the credit department it is sent to the billing department where the invoice is prepared At least two copies of a *sales invoice* are made by the billing department The original is sent to the customer, and the carbon copy is sent to the accounting department for use as the basis of an entry in the sales record Sometimes additional copies of the invoice are made for the use of different departments of the business For example the credit department may desire a copy for use in following up the payment of the invoice or the treasurer may desire a copy so that he can better estimate the funds to be obtained from sales or the shipping department may need a copy as authorization to pack and ship the goods

THE SALES INVOICE AND THE SALES JOURNAL One of the sales invoices used by Hiatt Home Appliances is illustrated on the opposite page It is similar in form to the purchases invoice illustrated in the previous chapter

The information on each sales invoice prepared by Hiatt Home Appliances during May 1950 is entered in the sales journal as shown on page 129

HIATT HOME APPLIANCES

James Hiatt

9700 OLYMPIC BOULEVARD—BEVERLY HILLS, CALIFORNIA

Sold to Louise Anderson
Culver City
California

Date May 1, 1950

No. 219

Shipped Via Express Collect

Terms 2/10,n/30

1	Floor Lamp, Model 487J	40.00
1	Floor Lamp, Model 987K	65.50
1	Trandle Washing Machine, Model 48H	140.00
1	Electric Stove, Model 345J	304.50
		550.00

Sales Invoice

SALES JOURNAL PAGE 47

DATE		SALE NO.	ACCOUNT DEBITED	ADDRESS	POST REF	AMOUNT
1950 May	1	219	Louise Anderson	Culver City, Calif	✓	550 00
	2	220	Arthur W Day	Brentwood Heights, Calif	✓	350 00
	4	221	John Gibson	Bel Air, Calif	✓	650 00
	5	222	Beverly Construction Co	Los Angeles, Calif	✓	1150 00
	8	223	Olympic-Park Apt Hotel	Beverly Hills, Calif	✓	900 00
	13	224	Beverly Construction Co	Los Angeles, Calif	✓	850 00
	19	225	Arthur W Day	Brentwood Heights, Calif	✓	500 00
	23	226	H V Thompson	Santa Monica, Calif	✓	600 00
	25	227	Earl Mandel	Pacific Palisades, Calif	✓	400 00
						5950 00
	31		Accounts Receivable Dr	— Sales Cr.	2/28	5950 00

Sales Journal

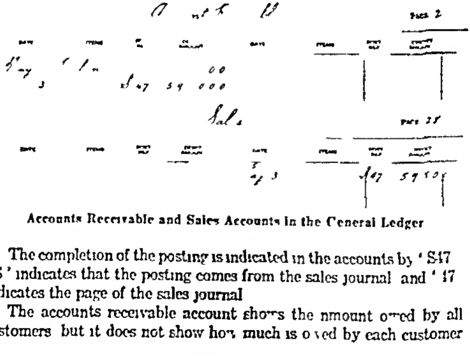
The use of the columns in the sales journal above is, in the main, apparent. The column headed "Sale No." gives the number of the sales invoice or the sales ticket on which appear itemized lists of the merchandise sold to the customers. Sales invoices ordinarily show the

kind, the amount, and the price of the goods sold. A copy of each invoice is retained, and from it the information to be recorded in the sales journal is obtained. These invoices are numbered consecutively and, after the entries have been recorded in the sales journal, are filed so as to be available for future reference. The number entered in the Sale No. column serves to identify the entry with the sales invoice to which it pertains in case a future comparison is desired.

The terms of the sale are stated on each invoice for the customer's information. As the terms are the same for all sales of Hiatt Home Appliance, they are not entered in the sales journal, nor are they posted to the customers' accounts.

The record of sales is known by various names, such as the *sales journal*, the *sales register*, the *sales book*, and the *sales record*. It is in reality a journal, since transactions are recorded in it so that their effect on the accounts will be shown. The sales journal is used to record sales of whatever product a business is engaged in selling. For the present, only sales on account will be entered in the sales journal.

POSTING THE SALES JOURNAL The total of the sales on account for the month of May as shown in the sales journal on page 129 is posted to the debit of Accounts Receivable and the credit of Sales in the general ledger. The accounts after this posting are shown below.



Accounts Receivable and Sales Accounts in the General Ledger

The completion of the posting is indicated in the accounts by "S47." "S" indicates that the posting comes from the sales journal, and "47" indicates the page of the sales journal.

The accounts receivable account shows the amount owed by all customers, but it does not show how much is owed by each customer.

and when each amount is due. An account with each customer is therefore maintained in a subsidiary ledger known as an *accounts receivable ledger.* Postings are made daily to the accounts receivable ledger so that the current balance of any customer may be readily known. The ruling of the accounts receivable ledger is planned to show the balance at all times. Provision is also made in the account heading for the name and the address of the customer.

The accounts receivable ledger of Hiatt Home Appliances, with previous balances and the postings from the sales journal for May entered in the accounts, is illustrated below. Since accounts in the accounts receivable ledger are arranged alphabetically and provision must be made for the insertion of new customer's accounts, it is not possible to assign them page numbers. Postings to the accounts receivable ledger are therefore indicated by a check mark (√) in the sales journal. However, the sales journal page is shown in the posting reference column of the accounts receivable ledger.

NAME Louise Anderson
ADDRESS Culver City, California

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950 May	1	√	47	550 00		550 00

NAME Beverly Construction Co.
ADDRESS Los Angeles, California

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950 May	5	√	47	1150 00		1150 00
	15	√	47	850 00		2000 00

NAME Arthur W. Dorr
ADDRESS Brentwood Heights, California

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950 Apr.	21	√	46	250 00		250 00
May	2	√	47	350 00		600 00
	19	√	47	500 00		1100 00

Accounts Receivable Ledger

Name [illegible]
Address [illegible] California

Date	Items	Post Ref.	Debit	Credit	Balance
[illegible]		S 46	1000 00		1000 00
May 4		S 47	650 00		1650 00

Name [illegible]
Address [illegible] California

Date	Items	Post Ref.	Debit	Credit	Balance
15		S 41	400 00		400 00
17	[illegible] returned	J 27		400 00	—

Name [illegible] Hotel
Address [illegible]

Date	Items	Post Ref.	Debit	Credit	Balance
19		S 46	3600 00		3600 00
May 8		S 47	900 00		4500 00

Name [illegible]
Address [illegible]

Date	Items	Post Ref.	Debit	Credit	Balance
19		S 46	650 00		650 00

Name V. V. Thompson
Address [illegible] California

Date	Items	Post Ref.	Debit	Credit	Balance
May 23		S 47	600 00		600 00

Name [illegible]
Address [illegible]

Date	Items	Post Ref.	Debit	Credit	Balance
29		S 45	500 00		500 00

Accounts Receivable Ledger — Concluded

After the posting has been completed, a schedule of accounts receivable may be prepared in the following form:

Hiatt Home Appliances
Schedule of Accounts Receivable
May 31, 1950

Louise Anderson	550 00	
Beverly Construction Co.	2 000 00	
Arthur W. Day	1 100 00	
John Gibson	1 650 00	
Olympic-Peck Apartment Hotel	4 500 00	
Albert K. Page	650 00	
H. V. Thompson	600 00	
Clarence Webb	500 00	
Total Accounts Receivable		11 550 00

Schedule of Accounts Receivable

This schedule shows the balance in each customer's account and the total of the accounts receivable. Since the same amounts are posted as a total to the accounts receivable account in the general ledger and individually to the customers' accounts in the accounts receivable ledger, the total of the schedule of accounts receivable should equal the balance of the accounts receivable account in the general ledger. If there is a difference, the error should be discovered before the work is continued.

Since the balance of the accounts receivable account is equal to the sum of the balances of the accounts in the accounts receivable ledger, it is apparent that the customers' accounts might be used in the general ledger instead of the accounts receivable account. But the use of the controlling account Accounts Receivable and the subsidiary ledger is generally recommended. Having the customers' accounts in a separate ledger facilitates posting. Furthermore, the use of the controlling account removes detail from the general ledger and facilitates the preparation of the trial balance and the accounting statements.

SALES RETURNS AND ALLOWANCES When goods sold on account are returned by a customer or when an allowance from the price of goods sold on account is granted, the seller usually issues to the customer a credit memorandum showing the amount of the credit given. When the seller records the credit that he has given a customer by means of a credit memorandum, he might debit Sales, but it is

ordinarily considered better to debit an account known as *Sales Returns and Allowances*. When this plan is followed, the books show the total sales and the total credits allowed, information that may be of value in the planning of future sales. The seller must also credit the accounts receivable account in the general ledger and the customer's account in the accounts receivable ledger.

On May 29, Hiatt Home Appliances issued a credit memorandum for $100 to Earl Mandel, a customer, for merchandise returned. The entry could be recorded in the general journal as follows:

May 29	Sales Returns and Allowances	29	400 00	
	Accounts Receivable—Earl Mandel	2/✓		400 00
	Merchandise sold on account was returned for credit			

General Journal Entry For Sales Return

Note that the credit is posted both to the accounts receivable account which appears on page 2 of the general ledger, and to the customer's account in the subsidiary ledger. Both postings are indicated in the posting reference column in the journal. After the posting has been completed, the accounts receivable account and the customer's account appear as follows:

Accounts Receivable — PAGE 2

DATE	ITEMS	POST. REF.	DEBIT	DATE	ITEMS	POST. REF.	CREDIT
1950 May 1	Balance	✓	600 00	1950 May 29		J27	400 00

NAME Earl Mandel
ADDRESS [illegible] California

DATE	ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 May 25		S47	400 00		400 00
29	Merchandise returned	J27		400 00	—

Accounts Receivable Account and Customer's Account After the Posting of a Return

If such transactions are frequent, a special column may be provided in the general journal so that the credits to the accounts receivable account can be posted as a total. Sometimes a separate journal, termed a *sales returns and allowances journal,* is used to record these transactions. Such a journal is illustrated below:

SALES RETURNS AND ALLOWANCES JOURNAL — PAGE 5

DATE		CR. MEMO. NO.	ACCOUNT CREDITED	EXPLANATION	POST. REF.	AMOUNT
[illegible] July	5	77	[illegible] Paint Store	Inv. #[illegible]; Allowance	✓	[illegible]
	5	78	[illegible]	Inv. #[illegible]; Return	✓	[illegible]
	12	79	[illegible] Paint Company	Inv. #624; Return	✓	[illegible]
	14	80	[illegible] Paint & Glass Co.	Inv. #631; Allowance	✓	[illegible]
	[illegible]	81	[illegible] Hardware Co.	Inv. #[illegible]; Return	✓	[illegible]
	25	82	[illegible] Co.	Inv. #[illegible]; Allowance	✓	[illegible]
	31	83	[illegible] Paint Store	Inv. #[illegible]; Return	✓	[illegible]
	31		Sales Returns and Allowances Dr.—	Accounts Receivable Cr.	[illegible]/2	175 45

Sales Returns and Allowances Journal

The individual items in the Amount column are posted frequently, usually daily, to the credit of the customers' accounts in the accounts receivable ledger. At the end of the month the total of the Amount column is debited to Sales Returns and Allowances and is credited to Accounts Receivable in the general ledger.

USING SALES INVOICES AS A SALES JOURNAL Sometimes, instead of using a sales journal, a business has carbon copies of its sales invoices bound together and uses them as a sales journal. When this is done, the total of each invoice is posted direct to the customer's account in the accounts receivable ledger. At the end of the month an adding machine list is made of all the invoices. An entry is then made in the general journal debiting Accounts Receivable and crediting Sales for the total sales for the month. For example, if the adding machine list shows that the sales on account for the month are $8,150, the following journal entry may be made:

June	30	Accounts Receivable	8,150	00		
		Sales			8,150	00
		To record the total sales for the month.				

PROBLEMS

1. During June of the current year Peter L. Milnor, a hardware merchant, completed the transactions given below. The terms of all sales were 2/10 eom.

June 4. Sold merchandise on account to Howard Rogers, 209 Derby St., sale No. 114, $600.
11. Sold merchandise on account to E. L. Clark, 4221 Castle Place, sale No. 115, $450.
14. Sold merchandise on account to M. A. Stevens, 3485 Minot Avenue, sale No. 116, $525.
18. Issued credit memorandum for $50 to E. L. Clark for merchandise returned by him.
21. Sold merchandise on account to C. D. Marshall, Milford, sale No. 117, $275.
23. Sold merchandise on account to Louis A. Ashley, 542 Smith Road, sale No. 118, $495.
25. Issued credit memorandum for $25 to C. D. Marshall for merchandise returned by him.
28. Sold merchandise on account to Boyd Graham, Lebanon, sale No. 119, $360.

Instructions: (1) Record the above transactions in a sales journal similar to the one illustrated on page 129 and in a general journal.

(2) Open the following accounts in the general ledger, using the page numbers indicated:

Accounts Receivable...... Page 5	Sales...................... Page 27
	Sales Returns and Allowances. Page 28

Also open the following accounts in the accounts receivable ledger: Louis A. Ashley; E. L. Clark; Boyd Graham; C. D. Marshall; Howard Rogers; M. A. Stevens.

(3) Post from the two journals to the accounts receivable ledger and the general ledger.

(4) Prepare a schedule of accounts receivable.

2. During October of the current year the Weldon Shoe Company completed the following transactions. The terms of all sales were 2/10 eom.

Oct. 1. Sold merchandise on account to Baker Dept. Store, Los Angeles, sale No. 541, $250.
3. Sold merchandise on account to Lewis Bootmakers, Beverly Hills, sale No. 542, $200.
5. Issued credit memorandum for $50 to Baker Dept. Store for merchandise returned by it.
7. Sold merchandise on account to Children's Bootery, Denver, sale No. 543, $150.
12. Sold merchandise on account to Leonard's Shop, Phoenix, sale No. 544, $475.
15. Issued credit memorandum for $35 to Leonard's Shop for merchandise returned by it.

CHAPTER IX

ACCOUNTING FOR CASH

NATURE OF CASH More transactions affect the cash account than any other single account. For this reason special journals are used most frequently for cash transactions. This chapter describes the use of special-column cash journals that greatly decrease the labor of recording transactions. They are the *cash receipts journal* and the *cash payments journal.* In some instances these two journals are combined into a *cashbook.*

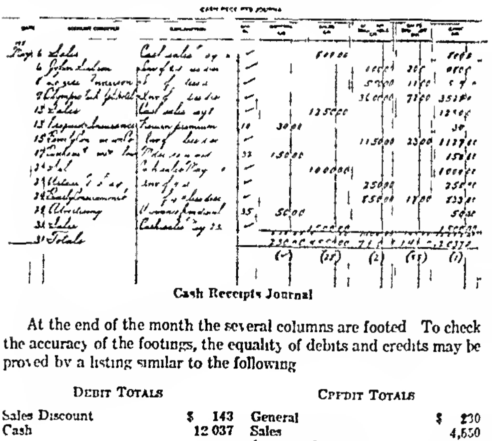
Cash is the most liquid of all the assets of a business. Care must be taken in the handling of cash in order to insure a complete accounting for all cash transactions. The generally recommended procedure is to deposit all cash receipts in the bank so that bank deposits will equal cash receipts. When this is done, all cash payments must be represented by checks drawn on the bank. This procedure provides a *double record of cash,* since the bank's report on deposits and checks should agree with the cash journal records of receipts and payments.

SOURCES OF CASH RECEIPTS The two chief sources of cash receipts are cash sales and collections from customers who have bought on account. When a customer takes advantage of a cash discount, the amount of cash received is less than the amount of the invoice for which payment is received. These facts determine the special columns to be used in the cash receipts journal. By providing special columns for (1) cash sales, (2) accounts receivable, and (3) sales discounts, it is possible to accumulate monthly totals and reduce the posting labor. A cash receipts journal with special columns for cash sales, accounts receivable, and sales discounts is shown on page 140.

THE CASH RECEIPTS JOURNAL In the five-column cash receipts journal of Hiatt Home Appliances, the first money column, General Cr., is for the credits for which no special column is provided. The Sales Cr. column is used in recording sales for cash. Each cash sale is not recorded separately; instead all cash sales are entered individually in the cash register and totals are recorded daily or at other intervals in the cash receipts journal. In this illustration they are recorded approximately weekly. The Accounts Receivable Cr. column shows the credit given each debtor for a cash payment.

The Sales Discount Dr column shows the amount of the sales discount granted the debtor The Cash Dr column shows the actual amount of cash received in each transaction

At frequent intervals during the month, preferably daily, the amounts entered in the Accounts Receivable Cr column are posted to the credit of customers' accounts in the accounts receivable ledger Check marks are placed in the posting reference column opposite these entries to show that they have been posted During the month the amounts in the General Cr column are posted to the appropriate accounts in the general ledger, and the posting is indicated by the ledger page numbers written in the posting reference column The items in the Sales Cr column are not posted individually but are posted only as a total to the sales account Check marks are placed in the posting reference column opposite these amounts to show that they have been properly taken care of



Cash Receipts Journal

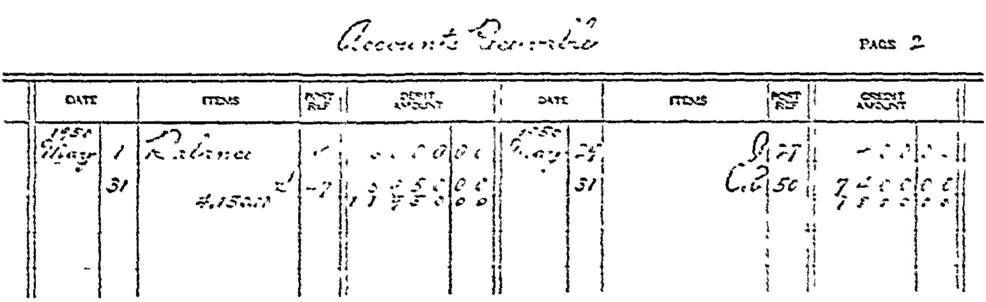
At the end of the month the several columns are footed To check the accuracy of the footings, the equality of debits and credits may be proved by a listing similar to the following

DEBIT TOTALS		CREDIT TOTALS	
Sales Discount	$ 143	General	$ 230
Cash	12 037	Sales	4,650
		Accounts Receivable	7,400
	$12,180		$12,180

If the debits and the credits are found to be equal, the totals are entered in the cash receipts journal and the book is ruled in the manner shown in the illustration.

Since the items in the General Cr. column have been posted individually to accounts in the general ledger, a check mark is placed below the total of this column to indicate that this amount is not to be posted. The totals of the other four money columns are posted to the appropriate accounts in the general ledger. The completion of the posting of each column total is indicated by the page number of the ledger account written in parentheses immediately below the total.

COMPARISON OF ACCOUNTS RECEIVABLE CONTROL WITH SUBSIDIARY LEDGER Three postings are made in the month of May to the controlling account Accounts Receivable as a result of the transactions recorded in this and the preceding chapter. They are: (1) May 31, total of sales on account from the sales journal, $5,950; (2) a sales return and allowance on May 29 from the general journal, $400; and (3) on May 31 the total of cash received on account, $7,400. The controlling account with its opening balance of $6,000 and these three postings is shown below:



Accounts Receivable Account at the End of the Month

While the posting of column totals from the cash receipts journal to the general ledger must be deferred until the end of the month, postings to the customers' accounts should be made daily. It is advisable to have the exact amount receivable from each customer available currently in the accounts receivable ledger. In approving sales for additional credit, it is useful to know just how much the customer owes; in fact, a review of his paying practices as shown by his account helps materially in credit granting.

The accounts receivable ledger of Hiatt Home Appliances is shown below after the postings from the cash receipts journal have been completed. These accounts also show the postings from the sales journal and from the general journal presented in earlier chapters.

NAME Olympic Park Apartment Hotel
ADDRESS Beverly Hills, California

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 Apr.	29		S 46	3,600.00		3,600.00
May	5		S 47	900.00		4,500.00
	9		CR 50		3,600.00	900.00

NAME Albert K. Rose
ADDRESS Hollywood, California

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 Apr.	29		S 46	650.00		650.00

NAME R. K. Tompkins
ADDRESS Santa Monica, California

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 May	23		S 47	600.00		600.00

NAME George Hall
ADDRESS Culver City, California

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 Mar.	29		S 44	500.00		500.00

Accounts Receivable Ledger at the End of the Month — Concluded

A schedule of accounts receivable, showing the amounts owed by each customer on May 31, 1950, is shown on page 144. The total of the schedule, $4,150, is the same as the balance of the controlling account, Accounts Receivable, shown on page 141. This equality is evidence that the work has been completed accurately and that the entries in the individual customers' accounts have been properly summarized in the controlling account in the general ledger.

[illegible]
Schedule of Accounts Receivable
[illegible] 1950

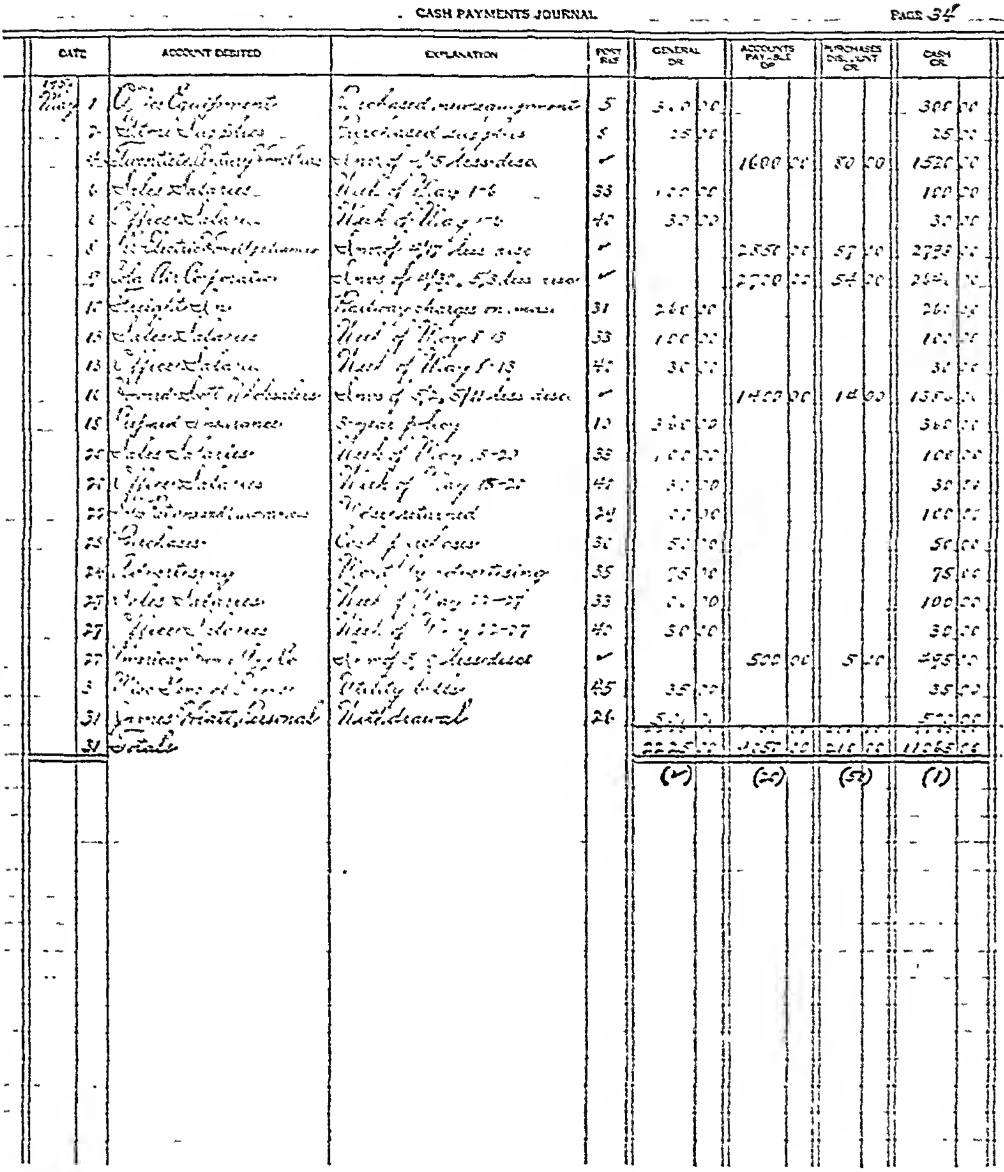
[illegible]	850 00	
[illegible]	650 00	
[illegible] Apartment Hotel	900 00	
[illegible]	650 00	
[illegible] Thompson	600 00	
[illegible]	500 00	
Total Accounts Receivable		4150 00

Schedule of Accounts Receivable

CASH PAYMENTS Cash payments consist primarily of cash paid (1) for operating expenses and (2) for amounts due creditors Since operating expenses are distributed among many accounts Hiatt Home Appliances does not set up a special column for each of them Special columns are used for payments to creditors and for recording the purchases discounts taken The cash payments journal shown on page 145 provides special columns for Accounts Payable Dr and for Purchases Discount Cr

THE CASH PAYMENTS JOURNAL Transactions for the month of May, 1950, are shown entered in the four-column cash payments journal of Hiatt Home Appliances The first money column General Dr is for the debits for which no special column is provided The Accounts Payable Dr column shows the credit received from each creditor for a cash payment The Purchases Discount Cr column shows the amount of the purchases discount granted by the creditor The Cash Cr column shows the actual amount of cash paid

At frequent intervals during the month preferably daily, the amounts entered in the Accounts Payable Dr column are posted to the debit of creditors accounts in the accounts payable ledger Check marks are placed in the posting reference column opposite these entries to show that they have been posted During the month the amounts in the General Dr column are posted to the appropriate accounts in the general ledger, and the posting is indicated by the ledger page numbers written in the posting reference column



Cash Payments Journal

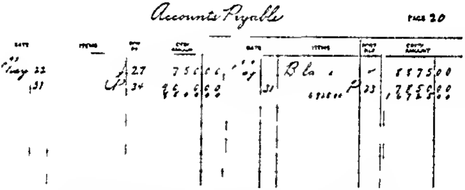
At the end of the month the several columns are footed. To check the accuracy of the footings, the equality of debits and credits may be proved by a listing similar to the following:

Debit Totals		Credit Totals	
General.	$ 2,225	Purchases Discount.	$ 210
Accounts Payable.	9,050	Cash.	11,065
	$11,275		$11,275

If the debits and the credits are found to be equal, the totals are entered in the cash payments journal and the book is ruled in the manner shown in the illustration.

Since the items in the General Dr. column have been posted individually to accounts in the general ledger, a check mark is placed below the total of this column to indicate that this amount is not to be posted. The totals of the other three money columns are posted to the appropriate accounts in the general ledger. The completion of the posting of each column total is indicated by the page number of the ledger account written in parentheses immediately below the total.

COMPARISON OF ACCOUNTS PAYABLE CONTROL WITH SUBSIDIARY LEDGER Three postings are made in the month of May to the controlling account Accounts Payable as a result of the transactions recorded in this and the preceding chapter. They are (1) May 31, total of purchases on account from the purchases journal, $7,850, (2) a purchase return and allowance on May 22 from the general journal, $750, and (3) on May 31 the total of cash paid on account, $9,050. The controlling account with its opening balance of $8,875 and these three postings is shown below.



Accounts Payable Account at the End of the Month

While the posting of column totals from the cash payments journal to the general ledger must be deferred until the end of the month, postings to the creditors' accounts should be made daily. It is advisable to have the exact amount owed to each creditor available currently in the accounts payable ledger.

The accounts payable ledger of Hiatt Home Appliances is shown on pages 147 and 148 after the postings from the cash payments journal have been completed. These accounts also show the postings from the purchases journal and from the general journal presented in earlier chapters.

NAME All Electric Home Appliances
ADDRESS Detroit, Michigan

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950						
Apr.	20	Apr. 17; 2/10, n/30	P22		2550 00	2550 00
May	8	May 7; 2/10, n/30	P23		1050 00	3600 00
	8		CP34	2550 00		1050 00

NAME American Home Appliances Co.
ADDRESS Pittsburgh, Pennsylvania

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950						
May	23	May 19; 1/10, n/30	P23		500 00	500 00
	27		CP34	500 00		—

NAME Cold Air Corporation
ADDRESS St. Louis, Missouri

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950						
Apr.	29	Apr. 29; 2/10, n/30	P22		1950 00	1950 00
May	5	May 3; 2/10, n/30	P23		750 00	2700 00
	9		CP34	2700 00		—

NAME Housekeeping Products Inc.
ADDRESS Denver, Colorado

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950						
May	30	May 29; 2/10, n/30	P23		1150 00	1150 00

NAME Howard-Scott Wholesalers
ADDRESS Los Angeles, California

DATE		ITEMS	POST REF	DEBIT	CREDIT	BALANCE
1950						
May	3	May 2; 1/15, n/30	P23		800 00	800 00
	11	May 11; 1/15, n/30	P23		600 00	1400 00
	16		CP34	1400 00		—

Accounts Payable Ledger at the End of the Month

NAME Model Home Equipment Wholesalers
ADDRESS San Francisco California

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 Apr	1	May 15 2/10 n/60	P 23		1250 00	1250 00
	17	May 25 2/10 n/60	P 23		850 00	2100 00

NAME Radio and Television Distributors
ADDRESS New York New York

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
1950 Apr	7	Apr 5 n/60	P 22		2475 00	2475 00
May	22	Note issued	J 27	750 00		1725 00

NAME Twentieth Century Home Aides
ADDRESS Chicago Illinois

DATE		ITEMS	POST. REF.	DEBIT	CREDIT	BALANCE
Apr	1	Apr 15 5/15 EOM	P 22		1600 00	1600 00
May	3	May 1 5/15 EOM	P 23		900 00	2500 00
	4		CP 34	1600 00		900 00

Accounts Payable Ledger at End of Month — Concluded

A schedule of accounts payable, showing the amounts owed to each creditor on May 31, 1950, is shown below. The total of the schedule, $6,925, is the same as the balance of the controlling account, Accounts Payable, shown on page 116. This equality is evidence that the work has been completed accurately and that the entries in the individual creditors' accounts have been properly summarized in the controlling account in the general ledger.

Knott Home Appliances
Schedule of Accounts Payable
May 31 1950

All Electric Home Appliances	1050 00	
Housekeeping Products Inc	1150 00	
Model Home Equipment Wholesalers	2100 00	
Radio and Television Distributors	1725 00	
Twentieth Century Home Aides	900 00	
Total Accounts Payable		6925 00

Schedule of Accounts Payable

REPORTING CASH DISCOUNTS ON THE PROFIT AND LOSS STATEMENT Purchases discount is usually reported on the profit and loss statement as *other income;* sales discount, as *other expense.*

Items listed on the statement under the headings "Other Income" and "Other Expense" affect the net profit or the net loss of the enterprise. They are considered apart from items representing the ordinary operations of the business and are therefore commonly placed at the end of the statement. A common method of reporting cash discounts on the profit and loss statement is illustrated below:

Net Profit from Operations		5000.00
Other Income:		
Purchases Discount	600.00	
Other Expense:		
Sales Discount	200.00	
Net Addition		400.00
Net Profit		5400.00

Partial Profit and Loss Statement Showing Purchases Discount and Sales Discount

If the other expense is greater than the other income, the other expense may be reported first, the difference may be labeled "Net Subtraction," and it may be subtracted from the net profit from operations to obtain the net profit.

THE DEPOSITOR'S BANK ACCOUNT Checks have taken the place of currency in the more important transactions involving receipts and payments; in fact, checks are treated as cash on accounting records. When a businessman uses checks, it is assumed that he has previously made deposits in the bank on which the checks are drawn. The deposits may consist largely of the checks of his customers. This use of a bank account is invariably recommended by accountants. The bank account safeguards and provides a better record of cash.

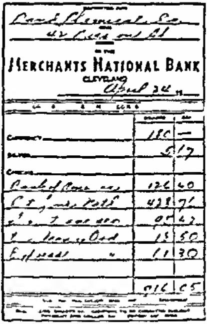
The forms commonly used by the depositor in dealing with his bank are:

Name	Function
1. Signature card.	Provides the bank with the authentic signature of the depositor.
2. Deposit ticket.	Furnishes the bank with the depositor's record of a deposit.
3. Passbook.	Provides the depositor with the bank's record of a deposit
4. Checkbook.	Furnishes the depositor with a paying medium.
5. Bank statement.	Provides the depositor with a periodic statement showing the condition of his account.

The Signature Card Before the first deposit is made, the bank requires the depositor to sign his name on a *signature card* This card provides the bank with a means of identifying the depositor's signature when it appears on checks drawn on the bank.

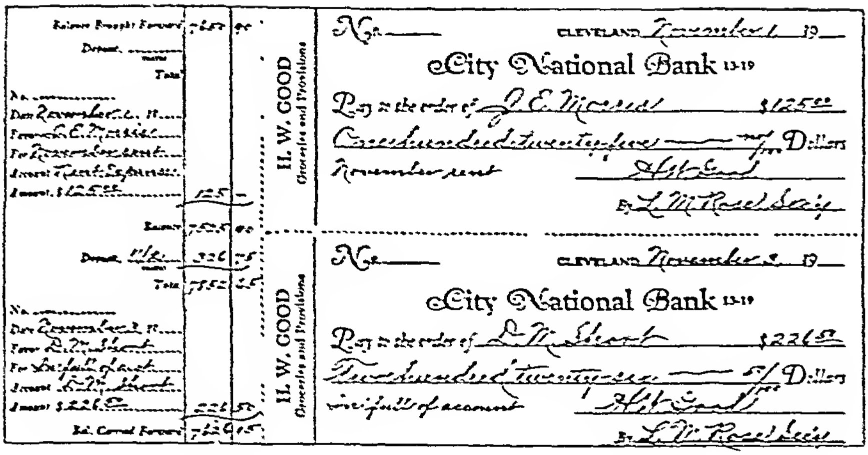
The Deposit Ticket When a deposit is made the depositor lists the currency and other items of cash on a printed form provided by the bank This form is known as a *deposit ticket* On it the depositor enters his name the date the total amounts of bills and specie, and the amounts of the individual checks Opposite the amount of each check the depositor should enter the name of the local bank or the address of an out-of-city bank on which the check is drawn or the numbers of the American Bankers Association that are printed on the check. A sample form of deposit ticket is shown in the illustration below

The Passbook At the time of the first deposit the bank gives the depositor a book known as a *passbook* in which a record is made of each deposit When the depositor presents his deposit and deposit ticket to the bank teller he should also present this passbook The teller enters the amount of the deposit in the passbook This entry serves as the depositor's record of the transaction The teller retains the deposit ticket and from this a record of the transaction is made in the books of the bank In some instances a duplicate deposit ticket signed by the teller is used in place of the entry in the passbook.



Deposit Ticket

The Checkbook A written order signed by a depositor ordering the bank to pay money from the amount deposited to his account is known as a *check* Checks may be issued from bound books that provide a stub record as shown in the illustration on page 151, or they may be prepared on the typewriter, in which case a carbon may take the place of the stub record When the stub is used, it should always be filled out before a check is written, otherwise it may be overlooked until after the check has been sent out and the data for the stub are no longer available



Checkbook

Bank Statement. Most banks give monthly statements to their depositors. The bank statement shows the amount on deposit at the beginning of the month, the amounts deposited during the month, the amounts withdrawn during the month, and the balance on hand at the end of the month. This statement is accompanied by the

STATEMENT OF YOUR ACCOUNT WITH

MERCHANTS NATIONAL BANK

L. M. SANDERSON
3689 MADISON ROAD

REPORT PROMPTLY ANY CHANGE IN YOUR ADDRESS

CHECKS			DEPOSITS	THE LAST AMOUNT IN THIS COLUMN IS YOUR BALANCE	
			BALANCE FORWARD	July 1	996.45
125.00	17.92			July 3	853.53
209.75	50.00	9.60		July 5	584.18
			325.42	July 6	909.60
97.00	189.65			July 9	622.95
			98.75	July 13	721.70
300.00	19.78	37.50		July 15	364.42
135.75	50.00			July 18	178.67
			209.75	July 20	388.42
60.00	158.50			July 25	169.92
			698.25	July 27	868.17
37.50			237.50	July 31	1,068.17

PLEASE EXAMINE AT ONCE AND REPORT ANY DISCREPANCIES OR ERRORS TO OUR AUDITOR WITHIN TEN DAYS.

VOUCHERS RETURNED 15

Bank Statement

depositor's checks that have been paid by the bank These checks are stamped or canceled to show that they have been paid and are therefore known as *canceled checks* A typical form of bank statement is shown in the illustration at the bottom of page 151.

The balance on the bank statement will usually not agree with the balance shown by the depositor s record on the check stubs One reason for this discrepancy is that some checks which the depositor has issued and has therefore subtracted from his bank balance will not have been presented to the bank at the time the bank statement is prepared and consequently will not have been subtracted from the depositor s balance in the records of the bank Other reasons for discrepancies are discussed below

The depositor should reconcile the bank statement with his record This is done in the following manner

(1) All deposits listed on the bank statement should be compared with the deposits shown on the check stubs Deposits not shown on the bank statement should be added to the bank balance Deposits not shown on the check stub record should be added to the checkbook balance

(2) All canceled checks received from the bank should be compared with the check stubs The numbers and the amounts of all checks that have not been returned by the bank should be listed The total shows the outstanding checks not yet paid by the bank This amount should be deducted from the bank statement balance

(3) Errors that incorrectly decreased the checkbook balance should be added to that balance and errors or unrecorded bank charges that decrease the checkbook balance should be subtracted from that balance

After the check stub balance has been adjusted for items on the bank statement and the bank statement has been adjusted for items on the check stubs the two amounts should agree The statement showing these adjustments is called a *reconciliation of bank balance* and is illustrated below

Reconciliation of Bank Balance March 31, 1950

Balance in checkbook		$1 358 40	Balance on bank statement		$1 4[illegible]
Add			Add Deposit March 31		20[illegible]
Collection of note	$200 00				
Error on stub #48	3 50	203 50			$1 64[illegible]
			Deduct		
		$1 561 90	Outstanding checks		
Deduct			No 141	$10 00	
Collection charge	*$ 1 50*		*144*	*5 50*	
Account charge for			145	47 80	
March	6 40	7 90	*146*	*28 40*	91[illegible]
Corrected checkbook balance		$1 554 00	Corrected bank balance		$1 554[illegible]

If the cash receipts journal and the cash payments journal have not been totaled and posted before the bank statement is reconciled, unrecorded charges made by the bank may be recorded as payments and unrecorded amounts collected by the bank may be recorded as receipts in the journals for the current month. If the journals for the month have been totaled and posted, these entries should be made in the journals for the new month.

CASH SHORT AND OVER It is possible to prove cash at any time by comparing the cash actually on hand and in the bank with the cash balance as shown by the records (beginning cash balance plus cash receipts minus cash payments). If there is a discrepancy between the actual cash and the balance shown by the cash records and if no error can be found and it must therefore be assumed that a mistake was made in making change, an entry is made debiting or crediting an account known as *Cash Short and Over*. If the actual cash is less than the balance shown by the cash records, an entry is made in the cash payments journal debiting Cash Short and Over and crediting Cash. If the actual cash is greater than the balance shown by the cash records, an entry is made in the cash receipts journal debiting Cash and crediting Cash Short and Over.

If, at the end of a fiscal period, the cash short and over account has a debit balance, the balance will be considered one of the general expenses. If it has a credit balance, the balance will be included in the other income section on the profit and loss statement.

CORRECTING ENTRIES Errors are occasionally made in recording transactions. Errors in books of original entry or in the ledger should not be erased. Erasures may lead one examining the books to believe that entries have been altered by the bookkeeper to defraud the owner, since an erasure does not indicate the reason for the change.

When the wrong amount is recorded in a book of original entry, the error may be corrected by drawing a line through the incorrect amount and writing the correct amount above. If the entry has been posted, but the accounts affected have not been closed, the error may be corrected in this way. In this case care must be taken to make the correction in both the book of original entry and the ledger.

If the wrong account was indicated in the book of original entry and the entry was thus posted incorrectly, or if an amount was merely posted to the wrong account, the correction is ordinarily made by a journal entry. The amount entered in the wrong account might be

canceled and the entry might be made in the correct account, but this method would not indicate the reason for cancellation It is therefore better to make the journal entry so that the full explanation will be given For example an expenditure for the services of clerks in a store which should have been charged to Sales Salaries was recorded as a debit to Office Salaries The correcting entry would be made in the general journal as follows

Mar 5	Sales Salaries	130 00	
	Office Salaries		130 00
	To correct the error made in the entry [illegible] caused by charging $ to Office Salaries which should have been charged to Sales Salaries		

A complete explanation should be given in a correcting entry to explain the error Reference to this correcting entry should also be made on the page where the error occurred

All errors that are discovered after the end of the fiscal period and that affect ruled books of original entry such as the sales or the purchases journals or that affect accounts that have been closed or ruled are corrected by journal entries In such cases the correction may be made more quickly by a journal entry than by changing amounts The journal entry is also understood more readily than a change in an amount affecting the total of a book or an account When the entry affects only asset or liability accounts the debit and the credit needed to correct the error are made to those accounts When an error affects the amount of the net income of a previous fiscal period a debit or a credit is made to the capital account instead of to the income or the expense account since all income and expense accounts have been closed and the net profit or the net loss for the period has been transferred to the capital account

For example a payment of $500 for advertising has been charged as an expense applicable to a particular month although it is for space in a newspaper for a period of six months If the error is discovered after the books have been closed the following entry is made

Jan 20	Prepaid Advertising	416 67	
	John Adams Capital		416 67
	To correct the error of [illegible] when advertising for six months was charged as an expense of that month		

The method of correcting errors will, to some extent, depend on the nature of the errors and the circumstances surrounding them. While the bookkeeper has considerable latitude in the methods used, he must make the corrections and the explanations so clear that they can be readily understood by any one examining the records.

QUESTIONS

1. Should the less experienced bookkeeper be assigned to the general journal or to one of the special journals? Why?

2. Ray S. Hardin posts to customers' and creditors' accounts each day, but he makes all other postings at the end of the month. (a) Is his general ledger always in balance? (b) If it is not, when can its accuracy be proved?

3. Describe the two related transactions indicated in the "T" accounts below:

Cash		Accounts Payable		Purchases		Pur. Discounts	
	(b) 1,568	(b) 1,600	(a) 1,600	(a) 1,600			(b) 32

4. Don Cooper pays several invoices that are subject to cash discounts. The date of each invoice, the terms, the amount and the date of payment are given in the following table. How much is the payment in each case?

	Date of Invoice	Terms	Amount	Date of Payment
(a)	October 4	2/10, n/30	$200.00	October 13
(b)	October 11	3/10, 1/30, n/60	500.00	October 20
(c)	October 14	1/15, n/60	400.00	October 28
(d)	October 18	3/10, 1/30, n/60	300.00	November 16
(e)	October 23	2/10, n/30	100.00	November 20

5. E. H. Slocum finds that his cash on hand by actual count is $148.32 but that his cash balance as shown by his cash journals is $146.32. Is his cash short or over? Give the entry needed to correct his records.

6. The bookkeeper for Robert Baird records a payment of $100 as $200. When and how will this error be discovered?

7. The account at the right is a controlling account for either accounts receivable or accounts payable:

1950		1950	
Jan. 31	8,600	Jan. 14	150
		31	4,500

(a) Give the name of the account.
(b) Name the journal from which each posting in the account was made.

Instructions: (1) Record the transactions in a special cash payments journal similar to the one illustrated on page 145, a purchases journal similar to the one illustrated on page 115, and a general journal. Number the purchases beginning with 1501.

(2) Open the following accounts in the general ledger, using the page numbers indicated:

Cash	Page 1	Purchases Returns	Page 19
Prepaid Rent	Page 7	Sales Salaries	Page 20
Accounts Payable	Page 8	Office Salaries	Page 22
William Hunt, Personal	Page 11	Misc. General Expense	Page 23
Sales Returns	Page 17	Purchases Discount	Page 24
Purchases	Page 18		

Also open the following accounts in the accounts payable ledger: Hall Manufacturing Company; Master Equipment Company; Wallace Products, Inc.

(3) Post from the three journals to the accounts payable ledger and the general ledger.

(4) Prepare a trial balance.

(5) Prepare a schedule of accounts payable.

2. The following sales, cash receipts, and general journal transactions were completed during the month of April, 1950, by William Hunt. The terms of all sales on account are 2/10, n 30.

April 1. Invested $3,000 cash.
3. Sold merchandise to George Hill, Santa Ana, California, $2,750.
7. Sold merchandise to L. Adair, Whittier, California, $1,650.
Post to the customers' accounts in the accounts receivable ledger.
9. Received cash from George Hill for invoice of April 3 less discount.
12. Sold merchandise to Donald Ferguson, Denver, Colorado, $850.
15. Cash sales for April 1–15, $1,775.
19. Received cash, $1,650, from L. Adair for invoice of April 7.
21. Received cash for returned purchases, $100.
Post to the customers' accounts in the accounts receivable ledger.
22. Received cash from Donald Ferguson for invoice of April 12 less discount.
23. Sold merchandise to George Hill, $2,575.
26. Sold merchandise to Donald Ferguson, $925.
28. Allowed George Hill credit for returned merchandise, $175.
30. Cash sales for April 16–30, $2,500.

Instructions: (1) Record the transactions in a special cash receipts journal similar to the one illustrated on page 140, a sales journal similar to the one illustrated on page 129, and a general journal. Number the sales beginning with 601.

(2) Open the following accounts in the general ledger, using the page numbers indicated:

Cash	Page 1	Sales Returns	Page 17
Accounts Receivable	Page 3	Purchases Returns	Page 19
William Hunt, Capital	Page 10	Sales Discount	Page 26
Sales	Page 16		

June 8. Received $490 from John Edwards for invoice of June 1 less discount.

8. Sold merchandise on account to Maxwell Co., 915 Broadway, $350.

10. Purchased merchandise on account from Rex Products, Chicago, $1,600; invoice dated June 9; terms, 2/10, n/30.

10. Cash sales for June 1–10, $825.

11. Sent a check to Spratt, Inc. in payment of invoice of June 1 less the return of June 5 and less discount.
Note that the amount of the return must be subtracted from the face of the invoice before the discount is calculated.

11. Purchased office equipment on account from Stanley Equipment Co., Buffalo, $750; invoice dated June 10; terms, net 60 days.

13. Received credit from Rex Products for merchandise returned to them, $60.

13. Sold merchandise on account to Bradley Page, 1042 Ninth Street, $275.

13. Purchased office supplies on account from Fiske & Taylor, 1350 Broadway, City, $72.50; invoice dated June 13; terms, net 30 days.

Post from all journals to the accounts receivable ledger and the accounts payable ledger.

15. Paid semimonthly salaries as follows: office salaries, $85; sales salaries, $225.

15. Purchased merchandise on account from Spratt, Inc., $1,300; invoice dated June 13; terms, 1/10, n/30.

18. Allowed Bradley Page credit for merchandise returned, $35.

18. Sent a check to Rex Products in payment of invoice of June 9 less credit for merchandise returned June 13 and less discount.

19. Received $35 cash for merchandise that was purchased for cash and later returned.

19. Received credit from Spratt, Inc. for allowance on damaged merchandise, $30.

20. Sold merchandise on account to Maxwell Co., $450.

20. Cash sales for June 11–20, $775.

Post from all journals to the accounts receivable ledger and the accounts payable ledger.

22. Purchased store equipment on account from Blaine & Snyder, St. Louis, $650; invoice dated June 20; terms, net 60 days.

23. Sent a check to Spratt, Inc. in payment of invoice of June 13 less allowance received on June 19 and less discount.

25. Allowed Maxwell Co. credit for damaged merchandise, $20.

26. Purchased store supplies on account from Carson & Custer, 201 Main Street, City, $35; invoice dated June 26; terms, net 30 days.

27. Sold merchandise on account to George McCall, 115 Reading Road, $680.

Post from all journals to the accounts receivable ledger and the accounts payable ledger.

CHAPTER X

THE PERIODIC SUMMARY

PROCEDURE FOR PREPARING THE PERIODIC SUMMARY The periodic summary for a nontrading business was presented in Chapter VI. A similar summary for a trading business will be presented in this chapter. Although there is no standard procedure for making such a summary, a convenient procedure, which will be followed in this chapter and later ones, is as follows:

1. Prepare a trial balance.
2. Compile the data that will be needed in adjusting the accounts. A good way to insure that none of the data will be omitted is to consider each item in the trial balance in the order in which it appears and to determine if any adjustment will be necessary.
3. Prepare a work sheet from the trial balance and the data for the adjustments.
4. Prepare a profit and loss statement from the profit and loss statement columns of the work sheet and a balance sheet from the balance sheet columns.
5. Record the adjusting entries in the journal, using the adjustments columns of the work sheet as a basis.
6. Record the journal entries required to close the income and expense accounts and to transfer the net profit or the net loss to the proprietor's personal account and the balance of this account to the capital account.
7. Post the adjusting and closing entries to the accounts in the ledger, and rule the accounts that are in balance or that it is desirable to balance.
8. Prepare a post-closing trial balance.
9. Prepare reversing journal entries to close the new asset and liability accounts set up by the adjusting entries and to transfer the amounts into the income and expense accounts that will be used in recording the transactions of the new fiscal period.
10. Post the reversing entries, and rule the accounts that are in balance.

If this procedure is compared with that followed in Chapter VI, it will be observed that the principal differences in completing the periodic summary are (1) the number of adjustments and (2) the preparation of reversing entries. Reversing entries may be used with a nontrading business; but in order to make the first summary as simple as possible, they were not included in Chapter VI.

PREPARATION OF THE WORK SHEET The work required at the end of the period may be illustrated from the records of Hiatt Home Appliances. On December 31, 1950 the end of a fiscal period of one year, a trial balance is prepared in the first two columns of a work sheet. The additional data needed in adjusting the accounts are then compiled, as shown in the table below. The adjustments are then entered in the debit and credit Adjustments columns of the work sheet according to whether the amounts are to be posted as debits or credits to the accounts. When an adjustment affects an account that does not appear in the trial balance, the name of the account is written below the trial balance in the Name of Account column and the amount is entered on the same line in the proper Adjustments column. (See the work sheet illustrated on page 163.) The debit and the credit for each adjustment are identified on the work sheet by small letters in parentheses. This plan is helpful when the bookkeeper later records the adjusting entries in the journal.

DATA FOR ADJUSTMENTS

Merchandise Inventory December 31, 1950		$20,000
Inventories of Supplies		
Store Supplies		600
Office Supplies		250
Prepaid Insurance Expired		
On Merchandise	$170	
On Store Equipment	150	
On Office Equipment	30	
On Building	50	400
Salaries Payable		
Sales Salaries	$100	
Office Salaries	60	160
Sales Commissions Payable		3,000

The adjustments are entered on the work sheet in the following manner:

Merchandise Inventory. The merchandise inventory of $18,000 on hand at the beginning of the year has during the year become a part of the cost of goods sold. This amount should therefore be transferred to the debit of Profit and Loss Summary. The entry is made by crediting Merchandise Inventory for $18,000 and debiting Profit and Loss Summary for the same amount.

The beginning inventory now recorded in the profit and loss summary account and the additional merchandise purchased during the

West [illegible] Appliances
Work Sheet
For Year Ended December 31, 195[illegible]

Name of Accounts	No.	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Profit and Loss Statement Dr.	Profit and Loss Statement Cr.	Balance Sheet Dr.	Balance Sheet Cr.
Cash	1	300000						300000	
Accounts Receivable	2	2000000						2000000	
Merchandise Inventory	3	1500000		(b) 2000000	(a) 1500000			2000000	
Store Equipment	4	2150000						2150000	
Office Equipment	5	550000						550000	
Building	6	1200000						[illegible]	
Land	7	300000						300000	
Store Supplies	8	[illegible]			(c) 52500			[illegible]	
Office Supplies	9	100000			(d) 75000			25000	
Prepaid Insurance	10	55000			(e) [illegible]			15000	
Accounts Payable	20		[illegible]						[illegible]
Mortgage Payable	21		500000						500000
James Pratt, Capital	[illegible]		6000000						6000000
James Pratt, Personal	[illegible]	500000						500000	
Sales	[illegible]		15350000				15350000		
Sales Returns and Allowances	[illegible]	350000				350000			
Purchases	30	11250000				11250000			
Freight In	31	750000				750000			
Purchases Returns and Allow.	32		400000				400000		
Sales Salaries	33	[illegible]		(f) [illegible]		800000			
Advertising	35	240000				240000			
Misc. Selling Expense	37	45500				45500			
Office Salaries	41	[illegible]		(f) [illegible]		320000			
Taxes	42	170000				170000			
Misc. General Expense	43	77000				77000			
Purchases Discount	51		250000				250000		
Sales Discount	55	200000				200000			
		[illegible]	[illegible]						
Profit and Loss Summary	[illegible]			(a) 1500000	(b) 2000000	1500000	2000000		
Store Supplies Used	[illegible]			(c) 52500		52500			
Office Supplies Used	[illegible]			(d) 75000		75000			
Insurance Expense [illegible]	[illegible]			(e) 17000		17000			
Insurance Expense [illegible]	[illegible]			(e) 15000		15000			
Insurance Expense [illegible]	[illegible]			(e) 3000		3000			
Insurance Expense [illegible] Building	[illegible]			(e) 5000		5000			
Salaries Payable	21				(f) 16000				16000
Sales Commissions	34			(g) 300000		300000			
Commissions Payable	22				(g) 300000				300000
				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net Profit						1500000			1500000
						[illegible]	[illegible]	[illegible]	[illegible]

Eight-Column Work Sheet

year represent the cost of merchandise available for sale Not all of this amount is a cost of the current fiscal period, for an inventory of $20 000 is available at the end of the year An entry must therefore be made debiting Merchandise Inventory to record the value of this asset and crediting Profit and Loss Summary to record the deduction from the merchandise available for sale

Supplies At the end of the year the inventory of store supplies amounts to $600 Store supplies expense is therefore $825, the difference between the total debits to the account and the value of the inventory Similarly the office supplies inventory is $250 and the office supplies expense is therefore $750 Adjustments (c) and (d) are made debiting Store Supplies Used and Office Supplies Used for the expenses and crediting Store Supplies and Office Supplies to record the decrease in the value of these assets

Prepaid Insurance The value of the asset Prepaid Insurance has decreased $400 and expenses have been incurred for insurance on merchandise store equipment, office equipment, and building To record the decrease in the value of the asset Prepaid Insurance, this account is credited for $400 The appropriate expense accounts are debited for their part of the insurance expense

Salaries and Commissions Payable The liability for the salaries earned but not paid is recorded by a credit of $160 to the liability account Salaries Payable and debits to the appropriate expense accounts, Sales Salaries and Office Salaries Similarly commissions earned but not paid are recorded by a credit to the liability account Commissions Payable and a debit to the expense account Sales Commissions.

After the adjustments have been entered in the Adjustments columns, the equality of the adjustment debits and credits is proved by adding the columns.

In the work sheet illustrated on page 92 the amounts in the Trial Balance and Adjustments columns are combined in the Adjusted Trial Balance columns It is equally correct, however, and often found to be simpler, to combine the amounts in the Trial Balance and Adjustments columns as they are extended into the Profit and Loss Statement and Balance Sheet columns. This latter plan is followed in the illustration on page 163

When the amounts in the Trial Balance and Adjustments columns are combined and extended, the debit of $18,000 and the credit of

\$20,000 to Profit and Loss Summary are both extended into the Profit and Loss Statement columns. The same net profit would have been obtained at the bottom of the work sheet if the difference between the two amounts had been entered as a credit of \$2,000 in the Profit and Loss Cr. column. But the debit amount of \$18,000 is the beginning inventory and the credit amount of \$20,000 is the ending inventory. Both of these amounts are used in the preparation of the profit and loss statement; both are therefore extended so that this statement can be prepared completely from the data in the Profit and Loss Statement columns of the work sheet.

When all items have been extended into the Profit and Loss Statement and Balance Sheet columns of the work sheet, the net profit for the period is determined by subtracting the total of the Profit and Loss Statement Dr. column from the total of the Profit and Loss Statement Cr. column. This net profit is found to be \$15,000. The net profit is also found by subtracting the Balance Sheet Cr. column from the Balance Sheet Dr. column. This amount, too, is found to be \$15,000 and is evidence that the work has been completed correctly. The amount of the net profit is added to the Profit and Loss Statement Dr. column and to the Balance Sheet Cr. column, and the columns are then ruled in the manner shown in the illustration on page 163.

PREPARATION OF THE STATEMENTS FROM THE WORK SHEET The profit and loss statement is prepared from the entries in the Profit and Loss Statement columns of the work sheet. The items that appear in the Profit and Loss Statement columns are shown in the order in which they are used on the report, with the exception of those that are listed below the trial balance. The method of preparing the profit and loss statement will be readily understood by studying the profit and loss statement on page 166 and by tracing to this statement each amount that appears in the Profit and Loss Statement columns of the work sheet.

The balance sheet is prepared from the entries in the Balance Sheet columns of the work sheet. The method of preparing the balance sheet from these columns will be understood readily by tracing each amount in the Balance Sheet columns of the work sheet to the balance sheet on page 167. The proprietorship is the balance of the capital account on the work sheet plus the difference between the net profit for the period and the balance of the proprietor's personal account. If the balance of the personal account is greater than the profit, the difference is subtracted from the old balance of the capital account.

HIATT HOME APPLIANCES

Profit and Loss Statement
For Year Ended December 31, 1950

Income from Sales:			
Sales		$153,500	
Less Sales Returns and Allowances		3,500	
Net Sales			$150,000
Cost of Goods Sold:			
Merchandise Inventory, December 31, 1949		$ 18,000	
Purchases	$112,500		
Add Freight In	7,500		
Delivered Cost of Purchases	$120,000		
Less Purchases Returns and Allowances	4,000		
Net Purchases		116,000	
Merchandise Available for Sale		$134,000	
Less Merchandise Inventory, December 31, 1950		20,000	
Cost of Goods Sold			114,000
Gross Profit on Sales			$ 36,000
Operating Expenses:			
Selling Expenses:			
Sales Salaries	$8,000		
Sales Commissions	3,000		
Advertising	2,400		
Store Supplies Used	825		
Insurance Expense on Merchandise	170		
Insurance Expense on Store Equipment	150		
Miscellaneous Selling Expense	455		
Total Selling Expenses		$ 15,000	
General Expenses:			
Office Salaries	$3,200		
Taxes	1,700		
Office Supplies Used	750		
Insurance Expense on Office Equipment	30		
Insurance Expense on Building	50		
Miscellaneous General Expense	770		
Total General Expenses		6,500	
Total Operating Expenses			21,500
Net Profit from Operations			$ 14,500
Other Income:			
Purchases Discount		$ 2,500	
Other Expenses:			
Sales Discount		2,000	
Net Addition			500
Net Profit			$ 15,000

Profit and Loss Statement

HIATT HOME APPLIANCES

Balance Sheet
December 31, 1950

Assets			
Current Assets:			
Cash		$ 3,000	
Accounts Receivable		20,000	
Merchandise Inventory		20,000	
Total Current Assets			$43,000
Fixed Assets:			
Store Equipment		$28,500	
Office Equipment		5,500	
Building		12,000	
Land		3,000	
Total Fixed Assets			49,000
Deferred Charges to Expense:			
Store Supplies		$ 600	
Office Supplies		250	
Prepaid Insurance		150	
Total Deferred Charges to Expense			1,000
Total Assets			$93,000
Liabilities			
Current Liabilities:			
Accounts Payable	$14,840		
Salaries Payable	160		
Commissions Payable	3,000		
Total Current Liabilities		$18,000	
Fixed Liabilities:			
Mortgage Payable (Due 1954)		5,000	
Total Liabilities			$23,000
Proprietorship			
James Hiatt, Capital, January 1, 1950		$60,000	
Net Profit for the Year	$15,000		
Less James Hiatt, Personal	5,000	10,000	
James Hiatt, Capital, December 31, 1950			70,000
Total Liabilities and Proprietorship			$93,000

Balance Sheet

ADJUSTING ENTRIES After the financial reports have been prepared, the adjusting entries are recorded in the general journal The Adjustments columns of the work sheet are used as the basis of these entries. After these entries have been posted, the accounts will reflect the financial condition of the business at the end of the fiscal period The adjusting entries for Hiatt Home Appliances are illustrated below

GENERAL JOURNAL PAGE 37

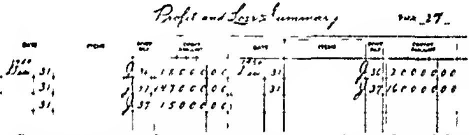
DATE		DESCRIPTION	POST. REF.	DEBIT AMOUNT	CREDIT AMOUNT
1951 Dec.	31	Sales	28	55,500.00	
		Purchases Returns and Allowances	32	4,000.00	
		Purchases Discount	51	2,500.00	
		Profit and Loss Summary	27		62,000.00
		To close all profit and loss statement accounts with credit balances			
	31	Profit and Loss Summary	27	47,000.00	
		Sales Returns and Allowances	29		3,500.00
		Purchases	30		12,500.00
		Freight In	31		7,500.00
		Sales Salaries	33		8,000.00
		Advertising	35		2,400.00
		Miscellaneous Selling Expense	39		455.00
		Office Salaries	40		3,200.00
		Taxes	41		1,700.00
		Miscellaneous General Expense	45		770.00
		Sales Discount	55		2,000.00
		Store Supplies Used	36		825.00
		Office Supplies Used	42		750.00
		Insurance Expense on Merchandise	37		170.00
		Insurance Expense on Store Equipment	38		150.00
		Insurance Expense on Office Equipment	43		30.00
		Insurance Expense on Building	44		50.00
		Sales Commissions	34		3,000.00
		To close all profit and loss statement accounts with debit balances			
	31	Profit and Loss Summary	27	15,000.00	
		James Hatt, Personal	26		15,000.00
		To close the profit and loss summary account			
	31	James Hatt, Personal	26	10,000.00	
		James Hatt, Capital	25		10,000.00
		To close the balance of the personal account into the capital account			

Closing Entries

CLOSING ENTRIES The closing entries are recorded in the general journal. These entries summarize in the profit and loss summary account the income, costs, and expenses for the period. By means of these entries, also, the net profit (or net loss) is transferred from the profit and loss summary account to the proprietor's personal account, and the balance of the latter account may be closed into the capital account. The closing entries of Hiatt Home Appliances are illustrated on page 169.

It will be observed that four closing entries are made: the first closes all profit and loss statement accounts with credit balances and transfers these credit balances to the credit side of the profit and loss summary account; the second closes all profit and loss statement accounts with debit balances and transfers these debit balances to the debit side of the profit and loss summary account; the third closes the profit and loss summary account and transfers the balance to the proprietor's personal account; and the fourth closes the personal account and transfers the balance to the proprietor's capital account.

When these entries are posted to the profit and loss summary account in the usual manner, that account will show only three debits and two credits.



Some accountants, however, prefer to have the profit and loss summary account show the income, costs, and expenses in detail. In such instances the individual items in each entry are posted to the profit and loss summary account. For example, in the first journal entry Sales, Purchases Returns and Allowances, and Purchases Discount are debited, and Profit and Loss Summary is credited for the sum of the three amounts. When the entry is posted to the profit and loss summary account, three credits are entered separately and the source of each credit is indicated in the Items column. Similarly the journal entry shows one debit for all costs and expenses; but when the entry is posted, the various debits making up this total are entered separately and the source of each is indicated in the Items column. This method, illustrated on page 171, has the advantage of showing in the profit and loss summary account all sources of income, cost, and expense instead of totals only.

Profit and Loss Summary PAGE 27

DATE		ITEMS	POST. REF.	DEBIT AMOUNT	DATE		ITEMS	POST. REF.	CREDIT AMOUNT
1955 Dec.	31	Beginning Inventory	J36	[illegible]	1955 Dec.	31	Ending Inventory	J36	20,000.00
	31	Sales Returns [illegible]	J37	[illegible]		31	Sales	J37	53,500.00
	31	Purchases	J37	12,5[illegible].00		31	Purchases Returns and Allowances	J37	[illegible]
	31	Freight In	J36	75[illegible].00		31	Purchases Discount	J37	25[illegible].00
	31	Sales Salaries	J37	[illegible]					
	31	Advertising	J37	[illegible]					
	31	Misc. Selling Exp.	J37	[illegible]55.00					
	31	Office Salaries	J37	[illegible]					
	31	Taxes	J37	[illegible]					
	31	Misc. Gen. Exp.	J37	[illegible]					
	31	Sales Disc.	J37	[illegible]					
	31	[illegible]	J37	[illegible]25.00					
	31	Office Supplies Used	J37	[illegible]					
	31	[illegible]	J37	170.00					
	31	[illegible]	J37	150.00					
	31	[illegible]	J37	30.00					
	31	[illegible]	J37	50.00					
	31	Sales Com.	J37	[illegible]					
	31	J. Hiatt, Cap.	J37	1,50[illegible].00					
				[illegible]					[illegible]

Profit and Loss Summary Account with Itemized Entries

After the adjusting entries and the closing entries shown on pages 168 and 169 have been posted to Hiatt's ledger and the accounts have been balanced and ruled, only the asset accounts, the liability accounts, and the proprietor's capital account remain open. The balances of these accounts correspond exactly with the amounts on the balance sheet on page 167.

THE POST-CLOSING TRIAL BALANCE At the end of a fiscal period the equality of the debits and the credits in the ledger is determined by means of a trial balance. The adjusting and the closing entries are then made. If these entries are recorded and posted correctly, the equilibrium of the debits and the credits in the ledger is not disturbed because the entries consist of equal debits and credits. A post-closing trial balance is therefore taken to test the accuracy of these entries. The post-closing trial balance of Hiatt Home Appliances is illustrated at the top of the following page.

Watt Van Appliances
Post-Closing Trial Balance
December 31, 1950

Cash	1	3000 00	
Accounts Receivable	2	20000 00	
Merchandise Inventory	3	20000 00	
Store Equipment	4	28500 00	
Office Equipment	5	5500 00	
Building	6	12000 00	
Land	7	3000 00	
Store Supplies	8	600 00	
Office Supplies	9	250 00	
Prepaid Insurance	10	150 00	
Accounts Payable	21		14840 00
Salaries Payable	22		160 00
Commissions Payable	23		3000 00
Mortgage Payable	24		5000 00
Watt Van, Capital	25		70000 00
		93000 00	93000 00

Post-Closing Trial Balance

REVERSING ENTRIES After the ledger has been closed, the liability account Salaries Payable has a credit balance of $160. When salaries are paid at the end of the biweekly pay period a part of the payment will cancel this liability and a part will be salary expense of the new period. It may not be convenient, however, for the bookkeeper to make this analysis at the time salaries are paid. Therefore, before the entries for the new period are recorded, an entry is made debiting the liability account Salaries Payable for $160 and crediting the expense accounts Sales Salaries and Office Salaries for $100 and $60 respectively. The total amount paid for salaries in the new period will be debited to the appropriate expense accounts. The balance of these accounts will then represent the actual expense for the new period.

Similarly the liability account Commissions Payable is debited for $3,000 and the expense account Sales Commissions is credited for that amount. During the new period the expense account Sales Commissions will be debited for all commissions paid. The balance of the account will then represent the actual expense for the new period.

Entries similar to these are called *reversing entries* because they reverse the adjusting entries made at the end of the preceding fiscal period. The reversing entries of Hiatt Home Appliances are illustrated below:

GENERAL JOURNAL PAGE 35

DATE		DESCRIPTION	POST REF	DEBIT AMOUNT	CREDIT AMOUNT
Jan.	2	Salaries Payable	21	160 00	
		Sales Salaries	33		100 00
		Office Salaries	40		60 00
		To close the salaries payable account			
	2	Commissions Payable	22	300 00	
		Sales Commissions	34		300 00
		To close the commissions payable account.			

Reversing Entries

After the reversing entries have been posted, the ledger of Hiatt Home Appliances will be ready for the entries to record the transactions of the new period.

QUESTIONS

1. J. F. Allen, a shoe merchant, has his bookkeeper prepare statements monthly but close the books only once a year. How many months will be covered in the Profit and Loss Statement columns of the work sheet on January 31? On March 31? On November 30?

2. The work sheet illustrated on page 163 does not use columns headed "Adjusted Trial Balance" that were used in the work sheet on page 92. Discuss the advantages and the disadvantages of using these columns.

3. R. D. Adams' personal account has a debit balance at the end of his fiscal period before the books are adjusted and closed. Could it have a debit balance after the accounts are adjusted and closed? Explain.

4. What is the difference in the purpose of (a) adjusting entries, (b) closing entries, and (c) reversing entries?

5 On December 31, the end of the annual fiscal period, what adjusting entries would be required for the following items? Which of the adjusting entries would be reversed?

(a) The inventories of merchandise are: January 2, $15 398 54; December 31, $16 245 65

(b) Office Supplies costing $150 and store supplies costing $455 15 were available for use during the fiscal period. Office supplies amounting to $50 and store supplies worth $100 are on hand on December 31

(c) On January 1 the prepaid insurance on merchandise was $40. This policy expired on June 30. On July 1 a new policy on merchandise stock was taken out for a period of one year, the premium being $60. This amount was debited to the prepaid insurance account

(d) Salaries that have accrued since the last pay day amount to $360. Of this amount $110 is owed to office employees and $250 to store clerks

6 Explain the nature of the entries marked (a), (b), and (c) in the following account

OFFICE SALARIES

1950				1950			
Dec 31	Balance	✓	4 324 60	Dec 31	(b)	J13	4 472 80
31	(a)	J12	148 20				
			4 472 80				4 472 80
				1951			
				Jan 2	(c)	J14	148 20

PROBLEMS

1 The account balances in the ledger of William Evans on December 31 of the current year are as follows

Cash	$ 12 600	Freight In	$ 5 000
Merchandise Inventory	19 000	Sales Salaries	14 000
Store Equipment	3 000	Advertising	1 500
Store Supplies	1 400	Misc Selling Expense	600
Prepaid Insurance	1 200	Office Salaries	600
William Evans, Capital	30 000	Rent Expense	1 200
Sales	100 000	Misc General Expense	400
Purchases	69 500		

The data for adjustments at the end of the year are

Merchandise inventory, $23 500
Store supplies inventory, $500
Prepaid insurance expired, $400

Instructions (1) Prepare an eight-column work sheet for the yearly fiscal period

(2) Record the adjusting entries in a general journal

2. The account balances in the ledger of the Morrison Sales Company on December 31 of the current year are as follows:

Cash....................	$ 6,067	Sales....................	$100,000
Accounts Receivable......	18,000	Sales Returns and Allow....	500
Merchandise Inventory.	5,000	Purchases....	88,200
Store Equipment....... ...	7,000	Freight In................	2,500
Office Equipment...... .	2,000	Purchases Ret. and Allow...	1,200
Store Supplies...........	480	Sales Salaries.............	6,540
Office Supplies............	175	Misc. Selling Expense.....	233
Prepaid Insurance.........	1,600	Office Salaries............	3,145
Accounts Payable.........	9,390	Rent Expense............	3,600
Mortgage Payable........	10,000	Misc. General Expense....	720
S. J. Morrison, Capital....	30,000	Purchases Discount.......	420
S. J. Morrison, Pers. (dr.)...	5,000	Sales Discount...........	250

The data for adjustments at the end of the year are:

Merchandise inventory, $15,000.
Supplies inventories:
  Store supplies, $66.
  Office supplies, $55.
Prepaid insurance expired, $1,200.
Accrued salaries:
  Sales salaries, $180.
  Office salaries, $60.

Instructions: (1) Prepare an eight-column work sheet for the yearly fiscal period.

(2) Prepare a classified profit and loss statement and a classified balance sheet.

(3) Record the adjusting entries in a general journal.

(4) Record the reversing entry as of the beginning of the new fiscal period.

3. The accounts and their balances in the ledger of C. C. Clark on March 31 of the current year were as follows:

Cash.........	$ 3,232.48	Profit and Loss Summary	— —
Accounts Receivable....	4,196.50	Sales..................	$18,150.40
Merchandise Inventory	13,100.00	Sales Returns and Allow..	57.80
Store Equipment......	4,750.00	Purchases...........	15,619.67
Office Equipment.......	*1,250.00*	*Freight In...............*	*385.10*
Building...............	8,000.00	Purchases Ret. and Allow...	175.00
Land.................	2,000.00	Sales Salaries............	400.00
Store Supplies..........	268.75	Advertising.............	102.75
Office Supplies..........	116.80	Store Supplies Used.......	— —
Prepaid Insurance.......	600.00	Insurance Expense on Merchandise...............	— —
Accounts Payable.......	3,861.50	Insurance Expense on Store Equipment............	— —
Salaries Payable........	— —	Misc. Selling Expense......	46.95
Taxes Payable.........	— —	Office Salaries...........	100.00
Mortgage Payable......	7,500.00	Taxes..................	77.20
C. C. Clark, Capital.....	25,000.00		
C. C. Clark, Personal (dr.)	300.00		

Office Supplies Used	— —	Misc. General Expense	$81 55
Insurance Expense on Office Equipment	— —	Purchases Discount	41 15
		Sales Discount	42 50
Insurance Expense on Building	— —		

The data for adjustments on March 31 were as follows:

Merchandise inventory		$13,850 00
Inventories of supplies		
Store supplies		184 50
Office supplies		81 25
Prepaid insurance expired		
On merchandise	$15 00	
On store equipment	4 00	
On office equipment	1 25	
On building	10 00	30 25
Salaries payable		
Sales salaries	$50 00	
Office salaries	12 50	62 50
Taxes payable		34 80

Instructions (1) Open an account in the ledger for each account listed Enter the balances in the appropriate accounts under date of March 31

(2) Prepare an eight-column work sheet for the monthly fiscal period

(3) Prepare a profit and loss statement and a balance sheet

(4) Record the adjusting entries in a general journal and post to the ledger accounts

(5) Record the closing entries and post to the ledger accounts.

(6) Rule and balance the ledger accounts

(7) Prepare a post-closing trial balance

(8) Record the reversing entries as of April 1 and post to the ledger accounts.

PRACTICE SET No. 1

Part 1

The transactions in this practice set were completed by Thomas Benton, the proprietor of a wholesale automobile accessories business. Although these transactions deal with the operations of a wholesale automobile accessories business, they are intended to illustrate general principles of accounting rather than the technique of the accounting system of a particular business.

Part 1, which is given on the following pages, applies the methods and principles developed in the first ten chapters. Part 2, which follows Chapter XIV, applies the methods and principles developed in Chapters XI to XIV also. Both parts may be recorded in the same set of blank books.

The general ledger accounts to be used are:

Cash
Notes Receivable
Interest Receivable
Accounts Receivable
Reserve for Bad Debts
Merchandise Inventory
Store Equipment
Reserve for Depreciation of Store Equipment
Office Equipment
Reserve for Depreciation of Office Equipment
Building
Reserve for Depreciation of Building
Land
Store Supplies
Office Supplies
Advertising Supplies
Prepaid Insurance
Prepaid Interest on Notes Payable
Notes Payable
Interest Payable
Accounts Payable
Salaries Payable
Mortgage Payable
Prepaid Rent Income
Thomas Benton, Capital
Thomas Benton, Personal
Profit and Loss Summary
Sales
Sales Returns and Allowances
Purchases
Freight In
Purchases Returns and Allowances
Sales Salaries
Receiving and Shipping Force Wages
Advertising
Advertising Supplies Used
Store Supplies Used
Depreciation of Store Equipment
Miscellaneous Selling Expense
Office Salaries
Rent Expense
Office Supplies Used
Depreciation of Office Equipment
Depreciation of Building
Expired Insurance
Loss from Bad Debts
Miscellaneous General Expense
Purchases Discount
Interest Income
Rent Income
Sales Discount
Interest Expense

Instructions: (1) Open the general ledger accounts, numbering the pages consecutively. Not all of these accounts will be used during the first month of this practice set, but all should be opened at this time.

The customers' accounts in the accounts receivable ledger are as follows

Becker Tire Shop, 3116 Parkway, City
Brownway Garage, 4221 Brownway, City
Central Service Station, 315 Main St, City
Dorton & Dewey, 417 Homer Ave, City
Evans Garage, 2351 Madison Road, City
Graham Auto Repair Co, 531 Shaw Ave, City
Highway Service Station, 3450 Plainville Road, City
Johnson Tire Shop, 682 E Sixth St, City
Langdon & Fillmore, 2130 Dale Road, City
Portland Transfer Co, 152 Third St, City
Rogers Service Station 136 Liberty St, City
Thompson Garage, Milford

The creditors' accounts in the accounts payable ledger are as follows:

Canton Tire Co, 3712 Canal St, Akron
Eustis Supply Co, 116 Main St, City
Howard Auto Supplies, 352 Market St, Chicago
Marshall Radio Corporation, 616 State St, Philadelphia
Perkins Battery Co, 1032 Randolph St, St Louis
Randolph Supply Co, 917 Front St, City
Walker Tire Co, 1240 River Road, Akron
Whitman Supply Co, 621 Broadway, City

Instructions (2) Open the accounts in the accounts receivable and the accounts payable ledgers, arranging the accounts in alphabetic order.

The books of original entry consist of a general journal with two amount columns; a purchases journal like that on pages 122 and 123; a purchases returns and allowances journal like that on page 120; a sales journal like that on page 129, a sales returns and allowances journal like that on page 135; a cash receipts journal like that on page 140; and a cash payments journal like that on page 145

Instructions: (3) Number the pages of each journal beginning with 1 in each journal

The balance sheet of September 30 of Thomas Benton, a wholesale dealer in automobile accessories, is as given on the following page

THOMAS BENTON

Balance Sheet

September 30, 19--

Assets					Liabilities and Proprietorship				
Current Assets:					Current Liabilities:				
Cash.	5,691	45			Accounts Payable . .			2,162	85
Accounts Receiv. .	1,142	60							
Mdse. Inventory . .	24,916	85			Proprietorship:				
					Thomas Benton, Cap.			29,954	00
Tot. Cur. Assets.			31,750	90					
Deferred Charges:									
Store Supplies. . . .	72	50							
Office Supplies . . .	51	25							
Adv. Supplies.	66	40							
Prepaid Insurance.	175	80							
Tot. Def. Charges			365	95					
Total Assets .			32,116	85	Total Liab. & Prop.			32,116	35

Instructions: (4) Make the opening entry in the general journal from the balance sheet. Post the entry.

The details of accounts receivable and accounts payable on September 30 are:

Accounts Receivable

Brownway Garage, 4221 Brownway, City, sale of September 29.	$ 206.50	
Graham Auto Repair Co., 531 Shaw Ave., City, sale of September 27.	347.80	
Langdon & Fillmore, 2130 Dale Road, City, sale of September 28.	142.25	
Thompson Garage, Milford, sale of September 26.	446.05	
Total Accounts Receivable.		$1,142.60

Accounts Payable

Eustis Supply Company, 416 Main Street, City, September 3, Purchase No. 387; terms, net 30 days.	$ 65.00	
Marshall Radio Corporation, 616 State St., Philadelphia, September 26, Purchase No. 413; terms, 2/10, n/30. .	985.60	
Walker Tire Company, 1240 River Road, Akron, September 28, Purchase No. 414; terms, 2/10, 1/15, n/30. .	1,112.25	
Total Accounts Payable.		$2,162.85

Instructions: (5) Record the balances in the appropriate customers' and creditors' accounts. All sales are made on the terms 2/10, n/30 and therefore the terms of each sale need not be given in the account, but the date of each sale should be shown in the Items column. Both the date and the terms of each purchase should be shown in the Items column in the accounts payable ledger.

October 6. Paid the following salaries and wages: sales, $330; receiving and shipping force, $70; office, $110.

October 6. Received $686.50, cash sales for October 1–6.

Post from the various journals to the customers' and creditors' accounts in the accounts receivable and the accounts payable ledgers. In actual practice this posting would be completed daily, but because of the comparatively small number of transactions in this set, the posting will be completed only at the end of each week and of each month.

October 8. Received from Becker Tire Shop check for $202.37 in payment of the sale of September 29 and from Langdon & Fillmore check for $139.40 in payment of the sale of September 28.

October 8. Paid cash for miscellaneous office supplies, $35.50.

October 9. Made the following purchases on account:

Purchase No. 420, Randolph Supply Co., store supplies, $27. Invoice dated October 9; terms, net 30 days.

Purchase No. 421, Walker Tire Co., merchandise, $700.74. Invoice dated October 8; terms, 2/10, 1/15, n/30.

October 9. Paid the printer $21.75 for booklets for the salesmen. Charge Miscellaneous Selling Expense.

October 10. Made the following sales on account:

Sale No. 786, Brownway Garage, $1,736.
Sale No. 787, Graham Auto Repair Co., $558.40.

October 10. Sent a check to Marshall Radio Corporation for invoice of October 1 and a check to Walker Tire Company for invoice of October 1.

October 12. Made the following sales on account:

Sale No. 788, Evans Garage, $2,003.35.
Sale No. 789, Becker Tire Shop, $483.25.

October 12. Purchased merchandise for cash, $575.95.

October 13. Received from Walker Tire Company a credit memorandum of $25.40 for return of merchandise on invoice of October 8.

October 13. Received from Johnson Tire Shop check for $238.63 in payment of the sale of October 3 less credit for return of October 6 and from Central Service Station check for $253.62 in payment of the sale of October 3.

October 13. Sent a check to Perkins Battery Company for invoice of October 4.

October 13. Made the following purchases on account:

Purchase No. 422, Whitman Supply Co., advertising supplies, $40. Invoice dated October 12; terms, net 30 days.

Purchase No. 423, Canton Tire Co., merchandise, $1,030.70. Invoice dated October 12; terms, 2/10, n/30.

October 13. Allowed Evans Garage credit of $74 for merchandise returned on the sale of October 12.

October 13. Paid the following salaries and wages: sales, $330; receiving and shipping force, $70; office, $110.

October 24. Made the following sales on account:
Sale No. 795, Johnson Tire Shop, $276.
Sale No. 796, Highway Service Station, $332.65.

October 25. Sent a check to Walker Tire Company for invoice of October 16.

October 26. Allowed Highway Service Station credit of $20 for damaged merchandise on the sale of October 24.

October 26. Received from Rogers Service Station check for $657.82 in payment of the sale of October 16 less credit for return of October 19 and from Portland Transfer Co. check for $327.81 in payment of the sale of October 16.

October 27. Made the following sale on account:
Sale No. 797, Thompson Garage, $1,381.05.

October 27. Received from Howard Auto Supplies a credit memorandum of $40, allowance for damaged merchandise on invoice of October 22.

October 27. Paid the following salaries and wages: sales, $330; receiving and shipping force, $70; office, $110.

October 27. Received $843.50, cash sales for October 22–27.

Post to the accounts in the accounts receivable and accounts payable ledgers.

October 29. Made the following purchases on account:
Purchase No. 428, Canton Tire Company, merchandise, $2,058.68. Invoice dated October 27; terms, 2/10, n/30.
Purchase No. 429, Randolph Supply Co., store supplies, $43.50. Invoice dated October 29; terms, net 30 days.

October 30. Allowed Thompson Garage credit of $24.95 for return of merchandise on the sale of October 27.

October 30. Paid bills for heat, light, and power, $75. (Charge Miscellaneous General Expense.)

October 30. Paid the telephone bill, $25. (Charge Miscellaneous General Expense.)

October 30. Received from Thompson Garage check for $347.60 in payment of the sale of October 6 and from Evans Garage check for $350.89 in payment of the sale of October 20.

October 31. Made the following sale on account:
Sale No. 798, Becker Tire Shop, $588.30.

October 31. Received from Canton Tire Company a credit memorandum of $11.80 for merchandise returned on invoice of October 27.

October 31. Paid freight in charges amounting to $86.75.

October 31. Withdrew $200 in cash for personal use.

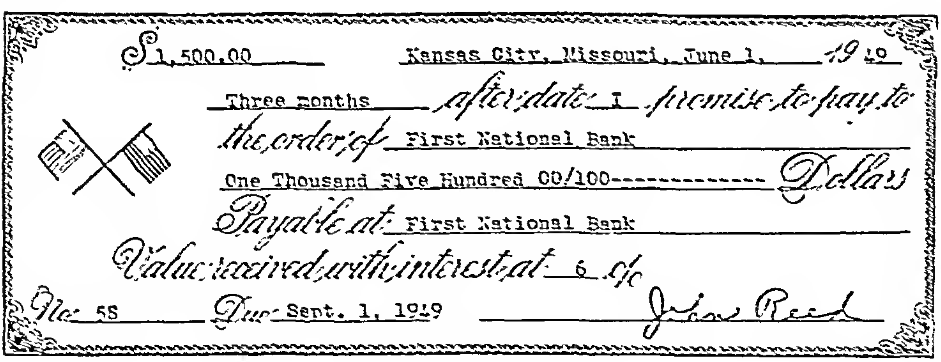
October 31. Received $395, cash sales for October 29–31.

CHAPTER XI

ACCOUNTING FOR NOTES AND INTEREST

NATURE OF INTEREST The granting of credit is one of the services, among many, rendered by the seller to the buyer, and its cost is included in the sales price of the commodity. Credit, itself, is a commodity that is often bought and sold. The price paid for credit is known as *interest*. For example, John Reed may borrow $1,500 in cash from the First National Bank on June 1 and agree that he will pay this amount on September 1 with interest at 6 per cent for the three-month period. Accordingly he pays $1,522.50 on September 1, of which $22.50 is interest, the price he pays for the use of $1,500 from June 1 to September 1.

When a business borrows money, it ordinarily gives the lender a written promise to pay known as a *note*. The note may be *interest-bearing* or *non-interest-bearing*. If it is interest-bearing, it states that interest is to be paid at a fixed percentage. If it is non-interest-bearing, no interest is charged until after the due date. Interest may be charged at the legal rate for any time that the note remains unpaid after it is due.


$1,500.00 Kansas City, Missouri, June 1, 19 49

Three months after date I promise to pay to the order of First National Bank

One Thousand Five Hundred 00/100------------- Dollars

Payable at First National Bank

Value received with interest at 6 %

No. 58 Due Sept. 1, 1949 John Reed

Interest-Bearing Note

Notes issued by firms to banks in procurement of loans are interest-bearing if the interest is to be collected at maturity, that is, when the notes are due. The bank may require, however, that the interest on a note be paid at the time the loan is contracted. In this case no rate of interest is stated on the face of the note because no interest is to be collected at maturity. A more detailed explanation of interest on notes issued to banks is given later in this chapter.

The interest charged a business by its creditors is an expense and is called *interest expense*. The interest that a business charges its customers is an income and is called *interest income*. It is evident that interest expense to one firm is interest income to the firm to which the interest is paid

ASCERTAINING INTEREST The rate of interest for a year is stated as a percentage of the face of the note. Thus, if the rate is 6 per cent, the face of the note is $1,000, and the time is one year, the interest is six one-hundredths (.06) of $1,000, or $60 a year

The time involved in ordinary commercial loans is usually less than one year, consequently the greater portion of practical interest problems require ascertaining the interest for a fraction of a year. To facilitate these calculations, it is customary to regard a year as 360 days. *In figuring interest on notes, businessmen usually consider a month* to be 30 days, or one-twelfth of a year When banks discount notes, however, they usually count the exact number of days until maturity, although 360 days are considered one year For example, a note for $1 200 that is issued on July 1 and is to be due on September 1 is issued for 62 days, or 62/360 of a year The method of determining the 62 days is shown in the table below

July 1 to July 31	30 days
August	31 days
September	1 day
	62 days

\$1,200 for 60 days at 6%	\$12.00
\$1,200 for 2 days (1/30 of \$12)	.40
Interest for 62 days	\$12.40

It is often necessary to ascertain the interest for a certain period at a rate greater or smaller than 6 per cent. In such a case the interest for the period at 6 per cent is determined first. The proper amount to be added to or subtracted from this amount is then computed, and the interest at the given rate is thus ascertained. For instance, if, in the example given above, the interest rate were 8 per cent, the interest on \$1,200 for 62 days at 6 per cent would be determined first. The interest at an additional 2 per cent would then be found by taking one third of the interest at 6 per cent. The two amounts would then be added. The calculation of the interest in this case is shown by the following table:

Interest on \$1,200 for 62 days at 6% =	\$12.40
Interest on \$1,200 for 62 days at 2% =	4.13
Interest on \$1,200 for 62 days at 8% =	\$16.53

If the rate of interest in the preceding example were only 5 per cent, one sixth of the interest at 6 per cent would be determined and this amount would be subtracted from the interest at 6 per cent. The calculation of the interest in this case is shown by the following table:

Interest on \$1,200 for 62 days at 6% =	\$12.40
Interest on \$1,200 for 62 days at 1% =	2.07
Interest on \$1,200 for 62 days at 5% =	\$10.33

NOTES PAYABLE All notes payable are usually recorded in one account. If many notes are issued, a supplementary record that gives the details of the notes may be kept. The form of this record will be discussed in a later chapter.

When notes are issued to creditors in payment of accounts, the liability Accounts Payable is decreased and the liability Notes Payable is increased. These facts are recorded by debiting the accounts of the creditors to whom the notes were issued and by crediting the notes payable account.

For example, if a business wishes an extension of time on an invoice, it may give a creditor a note payable for a period of thirty or sixty days. Assume that on November 7 W. L. Cooke gave a 30-day note for \$1,000 to a creditor, A. J. Funk. The following journal entry was made:

Nov. 7	Accounts Payable — A. J. Funk	1,000	
	Notes Payable		1,000
	Issued a 30-day note without interest.		

When Cooke paid the note on December 7, the following entry was made in his cash payments journal

CASH PAYMENTS JOURNAL

DATE		ACCOUNT DEBITED	EXPLANATION	POST REF	GENERAL DR	ACC S PAYABLE DR	PUR DISC CR	CASH CR
Dec	7	Notes Payable	A J Funk		1 000			1 0[illegible]

When A J Funk received the note from Cooke, he might have transferred it to his bank for cash If he had done so Cooke s entry would have been the same but his payment would have been made to the bank

RECORDING INTEREST EXPENSE Like all other expenses interest expense represents a deduction from proprietorship It is recorded as a debit in a separate account entitled Interest Expense

For example on July 1 C K Rust gave a creditor, R F Burdick, a note for $800 due in 30 days and bearing interest at the rate of 6 per cent On July 31 Rust gave Burdick a check for $804 in payment of the note and interest The issuance of the note was recorded in the general journal and the payment of the note and interest was recorded in the cash payments journal as follows

July 1	Accounts Payable — R F Burdick	800	
	Notes Payable		800
	Issued a 30-day 6% note in payment of the account with R F Burdick		

CASH PAYMENTS JOURNAL

DATE		ACCOUNT DEBITED	EXPLANATION	POST REF	GENERAL DR	ACC S PAYABLE DR	PUR DISC CR	CASH CR
July	31	Notes Payable	R F Burdick		800			8[illegible]
	31	Interest Expense	Int on above note		4			4

The result of these two entries was a debit of $800 to the account of the creditor, a debit of $4 to the expense account Interest Expense, and a credit of $804 to Cash

If a merchant has accounts payable subject to cash discount that he is unable to pay because of a lack of cash he will find it to his advantage to borrow from a bank and to take the cash discount. For example, on October 1 Clyde Weldin purchased merchandise for $1 200 terms 2/10 n/60, from Howard Dawes On October 11 Weldin did not have the money with which to pay this invoice He therefore borrowed $1 200 from the bank at 6 per cent for 30 days He sent the

creditor $1,176, the amount of the invoice less 2 per cent discount. On November 30 he paid the note with interest amounting to $10. The entries made by Weldin in his cash receipts and cash payments journals to record the loan from the bank, the payment to the creditor, and the payment to the bank were as follows:

CASH RECEIPTS JOURNAL

DATE		ACCOUNT CREDITED	EXPLANATION	POST. REF.	GENERAL CR.	SALES CR.	ACCTS. REC. CR.	SALES DISC. DR.	CASH DR.
Oct.	11	Notes Payable	50-day, 6% note		1,200				1,200

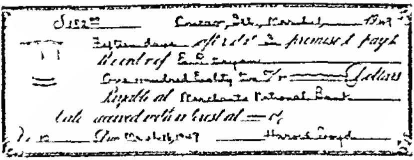
CASH PAYMENTS JOURNAL

DATE		ACCOUNT DEBITED	EXPLANATION	POST. REF.	GENERAL DR.	ACCTS. PAYABLE DR.	PUR. DISC. CR.	CASH CR.
Oct.	11	Howard Dawes	Invoice of Oct. 1			1,200	24	1,176
Nov.	30	Notes Payable	Bank note		1,200			1,200
	30	Interest Expense	Int. on above note		10			10

The net effect of this group of transactions is a $24 income item Purchases Discount and a $10 expense item Interest Expense. This net earning of $14 is reflected in the net credit of $1,186 to Cash instead of the $1,200 Weldin would have paid had he not paid his invoice until the end of the 60-day credit period.

NOTES RECEIVABLE Few notes are received in payment of sales in a typical retail business. A note is usually received by a retail firm only when a customer cannot pay his account on the due date and gives his note to obtain an extension of time. Notes are also received by retail firms that sell their products on long-term credit. For example, a retail dealer in household furniture may receive a note from a customer in exchange for merchandise. This note is usually paid by monthly installments. Wholesale firms and manufacturers receive notes more frequently than retailers, but accounts receivable of such wholesale firms and manufacturers are usually much larger than their notes receivable.

The one who signs a note and thus promises to make payment is known as the *maker* or *payer*. The one to whom payment is to be made is known as the *payee*. In the note on page 190, Harold Boyd is the maker and E. R. Bryan is the payee. The note is a liability of Boyd as he must pay its amount, and it is an asset of Bryan because it gives him a claim against the property of Boyd.


$182.00 Chicago, Ill., March 1, 1947
Fifteen days after date I promise to pay
to the order of E. B. Bryan
One hundred Eighty two 00/100 Dollars
Payable at Merchants National Bank
Value received with interest at — %
No. 12 Due March 16, 1947 Harold Boyd

Non Interest Bearing Note

When Bryan received the note from Boyd he made the following entry in his general journal

Mar 1	Notes Receivable	182	
	Accounts Receivable Harold Boyd		182
	Received a 15-day note without interest in payment of the account with Harold Boyd		

The credit entry is posted to the accounts receivable account in the general ledger and to the account of Harold Boyd in the customers ledger

If such transactions are numerous a special column may be provided in the general journal so that the debits to Notes Receivable can be posted as a total A separate journal known as a *notes receivable journal* is sometimes used

If Bryan wishes to receive cash on the note before it comes due, he can discount the note at a commercial bank If he does this he will *endorse* the note by writing his name on the back of the note This endorsement makes him liable for the payment of the note if the bank is unable to collect cash on the note when it comes due

It is customary to record all notes receivable in one account, since the proprietor has in his possession notes representing the total of this account The amount due from each customer on a note can be ascertained by examining the notes on hand The date of payment or any other information about the note can be determined in the same manner If numerous notes are received a supplementary record may be maintained to show the details relative to the notes. This record will be explained in a later chapter

RECORDING INTEREST INCOME Interest income is compensation for credit granted to others Like other forms of income it represents an addition to proprietorship It is recorded as a credit in a separate account entitled Interest Income

For example, on July 1 John Ritter received from a debtor, William Linder, a note for $1,000, due in 30 days and bearing interest at the rate of 6 per cent. On July 31 Ritter received $1,005 from Linder in payment of the note and interest. The receipt of the note was recorded in the general journal and the receipt of cash in payment of the note and interest was recorded in the cash receipts journal as follows:

July 1	Notes Receivable..........................	1,000	
	Accounts Receivable — William Linder.....		1,000
	Received a 30-day, 6% note to apply on account.		

CASH RECEIPTS JOURNAL

DATE		ACCOUNT CREDITED	EXPLANATION	POST. REF.	GENERAL CR.	SALES CR.	ACCTS. REC. CR.	SALES DISC. DR.	CASH DR.
July	31	Notes Receivable	Note of Wm. Linder		1,000				1,000
	31	Interest Income	Int. on above note		5				5

The net result of these two entries is a debit of $1,005 to Cash, a credit of $1,000 to the debtor's account, and a credit of $5 to Interest Income.

DISCOUNT ON NOTES Banks may collect interest in advance on the loans they make to their customers. A bank deducts the amount of interest from the face of the note given it by the customer and gives him cash for the remainder. This procedure is called *discounting a note.* The deduction made by the bank when it discounts a note is called *discount.*

The discount deducted by the bank is not to be confused with cash discount. A cash discount is a specified percentage applied directly to the invoice price. For example, a cash discount of 2 per cent on a $300 invoice is 2 per cent of $300, or $6. Discount deducted by the bank is interest paid in advance and is computed in the same manner as interest. For example, on the preceding amount, $300, bank discount figured at 6 per cent for 30 days would amount to $1.50, calculated as follows:

6% of $300 = $18 a year
30 days = 1/12 of a year
1/12 of $18 = $1.50

Bank discount is considered an interest expense and is charged to that account. For example, on September 1 John Ritter discounted his own 30-day note for $1,000 at the First National Bank. The bank charged him 6 per cent interest, which amounted to $5. It therefore gave him $995 in cash for his $1,000 note. Ritter's transaction with

his bank was recorded in his general journal and his cash receipts journal as follows.

Sept. 1	Cash	✓ 995	
	Interest Expense	5	
	Notes Payable		1,000
	Discounted our own 30-day note at 6% at the bank		

CASH RECEIPTS JOURNAL

Date		Account Credited	Explanation	Post Ref	General Cr	Sales Cr	Accts. Rec. Cr	Sales Disc Dr	Cash Dr
Sept	1	Notes Payable	See general journal entry of Sept 1	✓	995				995

The complete entry was made in the general journal, but the receipt of cash also had to be recorded in the cash receipts journal if this journal was to be a complete record of all cash received The two entries were made as shown above, but a check mark was placed in the Posting Reference column for the debit to Cash in the general journal and in the Posting Reference column for the credit to Notes Payable in the cash receipts journal When the books were posted, Cash was debited for $995 as a part of the total of the Cash Dr. column, Interest Expense was debited for $5 from the entry in the general journal, and Notes Payable was credited for $1,000 from the entry in the general journal

On October 1 Ritter paid the bank $1,000 in settlement of the note This transaction was recorded as follows:

CASH PAYMENTS JOURNAL

Date		Account Debited	Explanation	Post Ref	General Dr	Accts. Payable Dr	Pur Disc Cr	Cash Cr
Oct	1	Notes Payable	First National		1,000			1,000

The net result of all these entries was a debit of $5 to the expense account Interest Expense and a credit of $5 to the cash account.

Sometimes a business discounts the notes of customers at its bank. If a customer's note is non-interest-bearing, the bank will deduct from the face of the note the interest from the date of discount to the date of maturity and will then give the owner the difference. If the note is interest-bearing, the bank will add to the face of the note the interest from the date of issue to the date of maturity in order to find the maturity value of the note. It will calculate the interest on the maturity value from the date of discount to the due date and will deduct this

amount from the maturity value, giving the owner the difference, called the *proceeds*.

For example, on November 9 John Ritter received from a customer, J. W. Stone, the latter's 90-day, non-interest-bearing note for $1,125 in payment of a sale on October 10. This transaction was recorded as follows:

Nov. 9	Notes Receivable	1,125	
	Accounts Receivable — J. W. Stone		1,125
	Received a 90-day, non-interest-bearing note from J. W. Stone in payment of the sale on October 10.		

At the end of 30 days Ritter needed additional cash and therefore discounted this note receivable at his bank. The bank had to wait 60 days from the date of discount to obtain the face of the note, $1,125; consequently, it deducted discount, or interest, for 60 days from the face of the note. The rate of discount was 6 per cent, and the amount of the discount was $11.25. Ritter therefore received credit for $1,113.75 for the discounted note. This transaction was recorded in the general journal and the cash receipts journal as follows:

Dec. 9	Cash	√	1,113.75	
	Interest Expense		11.25	
	Notes Receivable			1,125.00
	Discounted the 90-day, non-interest-bearing note, dated November 9, that was received from Stone.			

CASH RECEIPTS JOURNAL

Date		Account Credited	Explanation	Post. Ref.	General Cr.	Sales Cr.	Accts. Rec. Cr.	Sales Disc. Dr.	Cash Dr.
Dec.	9	Notes Receivable	See general journal entry of Dec. 9	√	1,113.75				1,113.75

The problem is slightly different if the note bears interest. For example, on November 10 Ritter received from Harvey Dickson a 90-day note for $1,200 with interest at 6 per cent. The transaction was recorded as follows:

Nov. 10	Notes Receivable	1,200.00	
	Accounts Receivable — Harvey Dickson		1,200.00
	Received a 90-day, 6% interest-bearing note from Harvey Dickson.		

At the end of 90 days this note would be worth $1,218, the face plus interest. If the note was discounted at the end of 30 days, the bank would take into consideration the fact that it would receive

$1,218 when the note is due. It would therefore base the discount on that amount. If the rate of discount was 6 per cent, the discount on $1,218 for 60 days would be $12.18. When this amount ($12.18) was subtracted from the value of the note at maturity ($1,218), the *proceeds*, or the amount that the bank would pay Ritter for the note, would be $1,205.82. These computations may be tabulated as follows:

		Dr	Cr
Principal of note	$1,200 00		Notes Receivable
Interest (90 days, 6%)	18 00		Interest Income
Value of note at maturity	$1,218 00		
Discount (60 days, 6%)	12 18	Interest Expense	
Proceeds of note (present value)	$1,205 82	Cash	

The same data are shown graphically below:

Face of Note — Interest for 90 Days — Value of Note at Maturity

$1,200 + $18 $1,218

Discounted Value of Note — Discount for 60 Days — Value of Note at Maturity

$1,205 82 − $12 18 $1,218

It is common in transactions such as the one illustrated above to consider only the excess of the net proceeds over the face value of the note as interest income. The item of $12.18 is not, in reality, interest expense, but rather an adjustment of the overstatement of interest income. If the note had been held until maturity, the interest income would have amounted to $18. Discounting the note, however, resulted in a net gain of only $5.82. This amount was therefore recorded as interest income. The computation of the proceeds of the note would be made exactly as shown in the tabulation above. The entries in the general journal and the cash receipts journal of Ritter would be as follows:

CASH RECEIPTS JOURNAL

DATE		ACCOUNT CREDITED	EXPLANATION	POST. REF.	GENERAL CR.	SALES CR.	ACCTS. REC. CR	SALES DISC. DR.	CASH DR.
Dec.	10	Notes Receivable	See general journal entry of Dec. 10	√	1,205.82				1,205.82

The foregoing transaction might have been recorded in the cash receipts journal only with separate credits to Notes Receivable and Interest Income. As this is an unusual transaction, however, the method illustrated above is recommended so that the complete explanation made possible by the use of the general journal will be available.

In some instances the discount exceeds the interest earned by the note to maturity. This happens when the discount rate is higher than the interest rate and the discount period is approximately as long as the interest period. For example, if Ritter had discounted Harvey Dickson's note at a discount rate of 8 per cent 15 days after he received it, the discount would have been $20.30 and he would have received proceeds of $1,197.70. The discount in this case would have been $2.30 greater than the interest to maturity. The entries in the general journal and the cash payments journal of Ritter would have been:

Nov. 25	Cash	√	1,197.70	
	Interest Expense		2.30	
	Notes Receivable			1,200.00
	Discounted the 90-day, 6% interest-bearing note dated Nov. 10 and signed by Harvey Dickson; discount rate, 8%.			

CASH RECEIPTS JOURNAL

DATE		ACCOUNT CREDITED	EXPLANATION	POST. REF.	GENERAL CR.	SALES CR.	ACCTS. REC. CR.	SALES DISC. DR.	CASH DR.
Nov.	25	Notes Receivable	See general journal entry of Nov. 25	√	1,197.70				1,197.70

DISHONORED NOTES When a business discounts a note receivable, it is responsible to the bank for the payment of the note if the note is not paid at maturity by the maker. Discounting a note therefore results in what is known as a *contingent liability*. A contingent liability is not at the time of record a liability, but it may become one if some possible event should take place. It is possible that the maker of a note will not pay the note when the bank presents it to him for payment. In such a case, the note discounted becomes an actual liability of the business that discounted it.

As was explained on page 149, if the total other expense is greater than the total other income, the difference may be labeled "Net Subtraction" and may be subtracted from the net profit from operations to obtain the net profit.

THE CREDIT CYCLE Credit may be received on purchases or may be extended on sales. In either case business operations are facilitated and the accounting is extended and complicated. The illustrations below show the evolution of accounting for credit.

(a) Sale for cash.

Cash		Sales	
(a) 500			(a) 500

(b) Sale on account; cash collected at the end of the credit period.

Cash		Accounts Receivable		Sales	
(b) 500		(a) 500	(b) 500		(a) 500

Transaction (b) occurs at the end of the credit period and represents a delayed receipt of cash for the sale.

(c) Sale on account to A. Walker; note accepted to prolong the credit period; note paid at maturity.

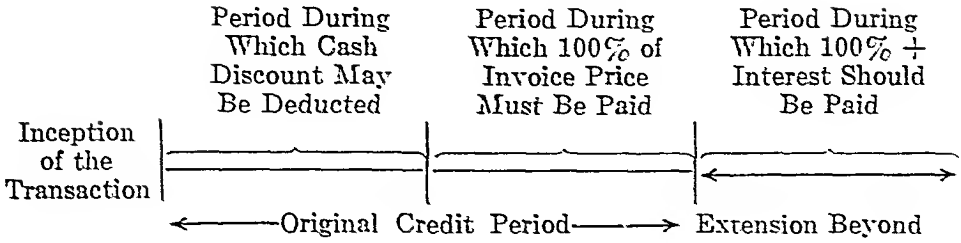
Cash		Notes Receivable		A. Walker		Sales	
(c) 500		(b) 500	(c) 500	(a) 500	(b) 500		(a) 500

In this type of transaction three steps are required to produce cash.

(d) Sale on account to G. Thomas; terms 2/10, n/30; sales discount taken by customer.

Cash		G. Thomas		Sales		Sales Discount	
(b) 490		(a) 500	(b) 500		(a) 500	(b) 10	

In the accounts shown above, G. Thomas was debited and Sales was credited at the time of the sale. Thomas paid this bill within the discount period and was therefore entitled to a $10 discount. The seller, who received the cash 20 days in advance of the 30-day credit period, had a sales discount expense of $10. This prompt payment by Thomas gave the seller his cash earlier, relieved him of bookkeeping costs, and eliminated the possibility of a bad debt.



The difference in computing cash discount and interest should be noted. The amount of cash discount is the same on the first and the last day of a particular cash discount period. For example, the discount of $120 on an invoice for $6,000, dated June 1, terms 2/10, n/30, can be deducted either on June 2 or June 11 or any date between. In the case of interest, the amount to be added becomes greater day by day. On a $6,000, 6 per cent note dated July 1, the interest would increase $1 each day. To pay the note on July 2 would require a total of $6.001: on July 3, $6,002; on July 11, $6.010.

QUESTIONS

1. When the Black Department Store started business, it paid cash for all its purchases and it received cash for all its sales. Its annual volume was $20,000. Today, its annual sales total $600,000, including cash sales and sales on account payable on the first of the following month. On some lines of goods customers pay monthly over 12 to 18 months. On purchases the company gets 30 to 90 days with cash discount privileges. To take advantage of all its cash discounts, it borrows from local banks on its notes. (a) In how many ways can this store use credit transactions? (b) Under what conditions might the store give or receive notes? (c) What three different accounts may be debited when Sales is credited? (d) When Purchases is debited, what three different accounts may be credited?

2. The balance sheet of Robert Scott, a retail grocer, on December 31 of the current year showed notes receivable of $5,000 and accounts receivable of $5,000. On the same date the balance sheet of James Foster, a competitor, showed notes receivable of $1,500 and accounts receivable of $8,500. (a) Which balance sheet indicated the more desirable condition? (b) If Scott and Foster were dealers in farm machinery, would your answer be the same?

3. On January 7 Harold Thomas purchased goods from the Shore Sales Co. for $375, terms 2/10, n/60. On February 1 he gave the vendor his 30-day, non-interest-bearing note. On March 2 he paid the note. Give the entries for the transactions in general journal form (a) on Shore's books and (b) on Thomas' books.

PROBLEMS

1. The transactions of the Ocean Finance Company in notes receivable and notes payable during 1950 may be derived from the following table:

Date	Principal Due	Rate of Interest	Interest Payable	Amount of Principal
Notes receivable:				
Jan. 1, 1950	6 mos.	6%	every 3 mos.	$ 2,000
Jan. 15, 1950	10 years	5%	every 6 mos.	10,000
May 20, 1950	60 days	6%	at maturity	1,200
Notes payable:				
Nov. 15, 1949	1 year	4%	every 6 mos.	12,000
Apr. 10, 1950	3 mos.	6%	at maturity	6,000

Instructions: Record all receipts and payments of principal and interest when due during 1950 in a cash receipts journal and a cash payments journal with columns similar to those illustrated in this chapter.

2. C. Haines completed the transactions listed below, among others, during a three-month fiscal period:

Sept. 1. Received from D. Shore, a customer, a 60-day, non-interest-bearing note for $7,200, dated September 1.
10. Gave M. Whiting, a creditor, a 60-day, 6% note for $2,400.
16. Discounted at the Harris Trust Bank at 6% the note received from D. Shore, dated September 1.

Oct. 1. Discounted at the Harris Trust Bank at 6% a 6% note for $5,000 received from H. Forest on November 30 of last year, due in one year.
8. Received from G. Simms, a customer, a 15-day, 5% note for $7,680, dated October 8.
12. Discounted at the Harris Trust Bank at 7% his own 6-month note for $12,000.
23. Received payment from G. Simms for the note of October 8.

Nov. 1. Notified by the Harris Trust Bank of the dishonor of the note of September 1 signed by D. Shore. Paid the bank the face value of the note and a $5 protest fee.
9. Paid amount owed on note issued to M. Whiting dated September 10.
30. Received payment from D. Shore for the note of September 1 including interest of $36.03 from the date of maturity.

Instructions: Record the transactions in a cash receipts journal, a cash payments journal, and a general journal like the ones in this chapter. In discounting notes, use the actual number of days to maturity.

3 The individual loan accounts in the subsidiary ledger of notes receivable of the Lewis Loan Co are given below

Name John Miller
Int rate 6% Payments $200 monthly plus interest

Date	Amount Paid	Interest to	Amount of Interest	Paid on Principal	Principal Balance
7 1 50					$10 000
8 1 50	$250	8 1 50	$50	$200	9 800
9 1 50	249	9 1 50	49	200	9 600

Name Alice Phillips
Int rate 6% Payments $400 every 2 months plus interest

4 15 50					$10 000
6 15 50	$500	6 15 50	$100	$400	9 600
8 15 50	496	8 15 50	96	400	9 200

Name Theodore Roberts
Int rate 5 Payments Interest semiannually principal $1 000 annually

4 10 49					$10 000
10 10 49	$ 250	10 10 49	$250		10 000
4 10 50	1 250	4 10 50	250	$1 000	9 000

Name Oscar Thompson
Int rate 6% Payments $250 monthly including principal and interest

8 25 50					$10 000
9 25 50	$250	9 25 50	$50	$200	9 800

Name Robert Williams
Int rate 4% Payments $5 000 annually plus interest

10 30 48					$10 000
10 30 49	$5 400	10 30 49	$400	$5 000	5 000

Instructions (1) Assume that the principal and the interest on all loans are received on the day they become due Record receipts during October 1950 in a cash receipts journal with the following money columns General Cr Interest Income Cr Notes Receivable Cr Cash Dr

(2) Post to the subsidiary ledger If a workbook is not used prepare loan accounts as above for the subsidiary ledger

(3) Enter the October 1 1950 balance of $12 600 in the notes receivable control account Post to the following general ledger accounts Cash Notes Receivable Interest Income

(4) Prepare a schedule to prove the controlling account.

*To conserve space headings are not repeated for each account

CHAPTER XII

DEFERRED AND ACCRUED ITEMS

NEED FOR CONSIDERATION The life of a business is divided into periods of time known as fiscal periods. At the end of each fiscal period two statements are prepared: one showing the assets, the liabilities, and the proprietorship at the end of the period; the other showing the income and the expenses for the period. True statements of the financial condition of the business and of the income and the expenses ordinarily cannot be prepared from the ledger accounts that include only current transactions, since there are some income and expense items that are not recorded currently.

Insurance expense takes place day by day but it is not until a balance sheet and a profit and loss statement are being prepared that insurance expense is made a matter of record. At that time the insurance expense applicable to the fiscal period is recorded in one entry covering the period. In a similar way provision must be made to see that all income and expense items of the period, but no others, are included in the profit and loss statement. Any part belonging to future periods should appear, not on the profit and loss statement, but on the balance sheet.

The items involved in such adjustments may be grouped in four classifications. They are:

1. Deferred charges to expense.
2. Deferred credits to income.
3. Accrued expense.
4. Accrued income.

Deferred charges to expense are the amounts that have been paid for expenses but that are really applicable to a future period. *Deferred credits to income* are the amounts that have been received in advance of the services rendered and that will be earned in future periods. Under the heading of *accruals* are the expense and the income items that have accrued from day to day but that have not yet been recorded. Interest expense on a note payable and interest income on a note receivable are illustrations of such items.

DEFERRED CHARGES TO EXPENSE *Deferred charges to expense* represent commodities and services that have been purchased for consumption but that are unconsumed at the end of the fiscal period. Although such items are purchased and paid for in one period,

the unused portions will not become expenses until they are consumed in a subsequent period They are therefore frequently termed *prepaid expenses* Prepaid expenses are of various kinds In this chapter prepaid insurance and prepaid interest are discussed to illustrate the procedure in handling prepaid expenses at the close of a fiscal period.

Recording a Deferred Charge as an Asset When insurance premiums are paid, the payments are debited to a prepaid insurance account. At the end of the fiscal period the amount of the insurance premiums expired during the period is ascertained from the policies, or, if an insurance policy register is maintained, the amount of expired insurance is found by obtaining the total of the column showing the expirations for the period The difference between the total of the premiums paid, which is shown by the prepaid insurance account, and the total of the premiums expired which is determined from the policies or the insurance policy register is the amount of unexpired insurance The expired insurance is analyzed according to the various types of property insured and the amount of expired insurance applicable to each kind of property is reported on the profit and loss statement in the proper expense group For example, expired insurance on merchandise and store equipment is considered a selling expense, and that on office equipment and buildings a general expense

To illustrate, it may be assumed that the prepaid insurance account has a balance of $500 at the close of the year This amount represents the unexpired insurance at the beginning of the year plus the total of the premiums paid during the year On December 31 it is ascertained from the insurance policy register that the following insurance has expired during the year $170 on merchandise, $150 on store equipment, $30 on office equipment and $50 on building The expired insurance is recorded by the following adjusting entry

Dec 31	Insurance Expense on Merchandise	170	
	Insurance Expense on Store Equipment	150	
	Insurance Expense on Office Equipment	30	
	Insurance Expense on Building	50	
	Prepaid Insurance		400
	To record the expired insurance premiums		

This entry transfers to appropriate expense accounts all of the expired portion of the premiums paid It leaves in the prepaid insurance account the unexpired portion, $100 This amount will be reported on the balance sheet as a deferred charge to expense

Recording a Deferred Charge as an Expense Occasionally prepaid expenses are charged directly to expense accounts as they are incurred

For example, in the previous chapter when notes were discounted, the prepaid interest expense was charged directly to the account Interest Expense. Assume that on December 1, a business discounts at 6 per cent its own 90-day note for $10,000. Its entry in general journal form is:

Dec. 1	Cash	9,850	
	Interest Expense	150	
	Notes Payable		10,000
	Discounted a 90-day note at 6%.		

At the end of the fiscal period on December 31, only one third of the interest expense has been used; the other two thirds will be an expense of the future fiscal period. The following adjusting entry transfers the unused portion of Interest Expense to an asset account, Prepaid Interest on Notes Payable. The entry is given below:

Dec. 31	Prepaid Interest on Notes Payable	100	
	Interest Expense		100
	To record the prepaid interest on notes payable.		

The prepaid interest on notes payable will appear on the balance sheet as a deferred charge to expense. The balance of the interest expense account will appear on the profit and loss statement under the heading "Other Expense."

If the interest expense account had a debit balance of $385 before the adjustment, the entry to close the account would be:

Dec. 31	Profit and Loss Summary	285	
	Interest Expense		285
	To close the interest expense account.		

When these entries have been posted, the interest expense account and the prepaid interest on notes payable account appear as follows:

Interest Expense

1949					1949				
Dec.	1	Balance	√	235	Dec.	31	Adjusting	J36	100
	1		J35	150		31	Closing	J37	285
				385					385

Prepaid Interest on Notes Payable

1949									
Dec.	31	Adjusting	J36	100					

REVERSING ENTRIES The prepaid interest item of $100 will become an expense during the next fiscal period and should be recorded in the interest expense account as an expense of the next period At the beginning of the new fiscal period therefore the entire amount of the prepaid interest is transferred from Prepaid Interest on Notes Payable to Interest Expense by a *reversing entry* so called because it reverses the adjusting entry made at the end of the preceding period This entry is as follows

Jan 2	Interest Expense	100	
	Prepaid Interest on Notes Payable		100
	To transfer the prepaid interest to the interest expense account		

When this entry has been posted the interest expense account and the prepaid interest on notes payable account will appear as follows

INTEREST EXPENSE

1949					1949				
Dec	1	Balance	✓	235	Dec	31	Adjusting	J36	100
	1		J35	150		31	Closing	J37	285
				385					385
1950									
Jan	2	Reversing	J38	100					

PREPAID INTEREST ON NOTES PAYABLE

1949					1950				
Dec	31	Adjusting	J36	100	Jan	2	Reversing	J38	100

The interest expense account is now ready for the recording of all January interest expense transactions Additional payments for interest expense will be debited directly to the interest expense account.

As stated in Chapter VI the purpose of an adjusting entry is to record in a single entry events affecting an account that have taken place during the fiscal period If the account in question is an asset account such as Prepaid Insurance Prepaid Rent or Office Supplies a portion of the account balance has become an expense and that portion is transferred to an expense account In this case no reversing entry is needed as the new account set up by the adjusting entry is an expense account

If however the account to be adjusted is an expense account such as Insurance Expense Interest Expense or Office Supplies Expense a reversing entry would be needed For example when interest paid

is charged currently to Interest Expense, at the end of the fiscal period a portion of this expense account would represent prepaid interest, an asset. In this case the asset portion would be transferred to an asset account, Prepaid Interest on Notes Payable, by the adjusting entry. The new account set up by the adjusting entry is a balance sheet account. It therefore needs to be reversed before the transactions of the new period are recorded.

From this illustration it is possible to formulate a rule for reversing entries, as follows:

(a) If the adjusting entry sets up a *new* balance sheet account, the adjusting entry should be reversed at the beginning of the new period.

(b) If the adjusting entry sets up a *new* profit and loss statement account, the adjusting entry does not need to be reversed.

Examination of these two situations will indicate why a reversing entry is needed in (a) and not needed in (b). In (b) the new account is closed into Profit and Loss Summary; while in (a) the new account still stands on the books and needs to be transferred back to the profit and loss statement account.

DEFERRED CREDITS TO INCOME Income that is received during one period may not have been earned during that period but may be earned in a following period. Such items of income are known as *deferred credits to income.* For example, a publishing company receives payments for subscriptions to its publications in advance for a period of time extending beyond the end of the current fiscal period. The portion of the payments that is applicable to subsequent fiscal periods represents a deferred credit to income. When a bank discounts the note of a customer, it may deduct interest for a period extending beyond the end of its current fiscal period. The portion of the interest that is applicable to a subsequent fiscal period represents, on the records of the bank, a deferred credit to income.

Other examples of deferred credits to income are rent received in advance by a business on property owned, storage charges received in advance by a warehouse company or a garage, premiums received in advance by an insurance company, tuition received in advance by a school, an annual retainer's fee received in advance by an attorney, and amounts received in advance by an advertising firm for advertising service to be rendered in the future. In each of these cases the unearned portion of the income received is, at the close of the fiscal period, a deferred credit to the income of the subsequent period or periods in which it will be earned.

By accepting payment for the commodity or the service in advance a business renders itself liable to furnish the commodity or the service at some future time If at the end of the fiscal period some portion of the commodity or the service has been furnished, part of the liability has been discharged and part of the income has been earned The earned income appears on the profit and loss statement as part of the income of the period The unearned portion of the payment represents a liability of the business to furnish the commodity or the service in a future period and is reported on the balance sheet as a liability under the heading Deferred Credits to Income Since these facts appear on the reports they should also be recorded in accounts

Recording a Deferred Credit as an Income On December 31 the end of a yearly fiscal period the interest income account in the ledger of J R McDonald has a credit balance of $1 250 The records of the business show that $250 of this balance represents prepaid interest income The prepaid interest is transferred to the account Prepaid Interest on Notes Receivable by the following adjusting entry

Dec 31	Interest Income	250	
	Prepaid Interest on Notes Receivable		250
	To record prepaid interest on notes receivable		

This entry transfers the balance of prepaid interest to a balance sheet account leaving only the amount that was earned in the interest income account The balance of the interest income account will be closed into the profit and loss summary account when the closing entries are made

Since the prepaid interest on December 31 will be earned during the next year it should be recorded in the interest income account as income of that year At the beginning of the new year, therefore the balance of the prepaid interest on notes receivable account is transferred to the interest income account by the following reversing entry

Jan 2	Prepaid Interest on Notes Receivable	250	
	Interest Income		250
	To transfer the prepaid interest on notes receivable to the interest income account		

When this entry has been posted, the prepaid interest on notes receivable and the interest income accounts appear as follows

PREPAID INTEREST ON NOTES RECEIVABLE

1950 Jan	2	Reversing	J38	250	1949 Dec	31	Adjusting	J36	250

INTEREST INCOME

1949					1949				
Dec.	31	Adjusting	J36	250	Dec.	31	Balance	✓	1,250
	31	Closing	J37	1,000					
				1,250					1,250
					1950				
					Jan.	2	Reversing	J38	250

The credit item of $250 in the interest income account represents income of the period in which the interest will be earned.

Recording a Deferred Credit as a Liability. Income that is received before it is earned may be credited to a liability account. For example, if rent income of $4,000 covering a period of two years in advance is received on July 1, the transaction may be recorded in general journal form as follows:

July 1	Cash	4,000	
	Prepaid Rent Income		4,000
	Two years' rent in advance.		

On December 31, the end of the fiscal period, $1,000 of this amount will be earned and $3,000 will be unearned. The following adjusting entry may then be made:

Dec. 31	Prepaid Rent Income	1,000	
	Rent Income		1,000
	To record the earned rent income.		

Prepaid Rent Income then has a balance of $3,000, the amount that is unearned, and Rent Income has a balance of $1,000, the amount of income earned during the current fiscal period. The credit balance of the rent income account is closed to Profit and Loss Summary; the credit balance of the prepaid rent income account is reported on the balance sheet as a deferred credit to income.

As was explained on page 207, no reversing entry is required in this instance because the adjusting entry set up a new profit and loss statement account and not a new balance sheet account.

ACCRUED EXPENSES At the end of the fiscal period, the accounts should show all the expenses incurred during that period. In addition to the expenses recorded in the accounts, there may be expenses that have accrued but that have not been recorded because payment will not be due until later. For example, a business may pay its employees their weekly salaries on Thursday. If its fiscal period ends on Saturday, it will owe its employees salaries

Sales Salaries

1949 Dec.	31	Balance	✓	6,700	1949 Dec.	31	Closing	J37	6,800
	31	Adjusting	J36	100					
				6,800					6,800
					1950 Jan.	2	Reversing	J38	100

When the $300 in wages is paid on January 4, the entire amount can be debited to the sales salaries account. The difference between the debit item of $300 and the credit item of $100 in this account will be an expense of the year in which the $300 is paid.

The discussion of the treatment of accrued salaries serves to illustrate the method of handling items of accrued expense in general. If, in addition to accrued salaries, there are other items of accrued expense at the end of a fiscal period, separate accounts may be set up to record as liabilities the claims of others that represent expense items consumed during the period but not payable until a subsequent period. When these liability items are numerous, one liability account, termed Accrued Payables, may be opened. All accrued liabilities may be recorded as credits to this account instead of to separate accounts. In this case the nature of each item should be stated in the Items column of the ledger account. The accrued liabilities are reported on the balance sheet as current liabilities. Whether the one account or separate accounts are set up to record the accrued liabilities, the proper expense accounts are debited for the expenses incurred during the period but not yet paid.

ACCRUED INCOME Income may be earned in one fiscal period, but it may not be due until a subsequent period. Accurate accounting demands that each period be given credit for the income earned during that period.

To illustrate, assume that on December 1 a business receives from a customer a note for $2,000 due in four months with interest at 6 per cent. On December 31 one fourth of this interest has been earned. If the books are closed on December 31, $10 of the total interest to be received should appear on the balance sheet as an asset and also on the profit and loss statement as income earned. To record the asset Interest Receivable and the income Interest Income, the following adjusting entry is made:

Dec 31	Interest Receivable	10	
	Interest Income		10
	To record the interest accrued to date on notes receivable		

The interest accrued on notes receivable, which is the amount recorded in the interest receivable account, will appear on the balance sheet of December 31 as a current asset. The total interest earned during the year, which is the balance of the interest income account, will appear on the profit and loss statement as other income. When the closing entries are made on December 31, the interest income account will be closed into the profit and loss summary account.

To avoid the inconvenience of analyzing each receipt of interest, it is desirable at the beginning of a new fiscal period to transfer the amount of the accrued interest from Interest Receivable to Interest Income by means of a reversing entry This entry is as follows:

Jan 2	Interest Income	10	
	Interest Receivable		10
	To transfer the interest receivable account to the interest income account		

When the reversing entry has been posted, the interest receivable account and the interest income account appear as follows

INTEREST RECEIVABLE

1949					1950				
Dec	31	Adjusting	J36	10	Jan	2	Reversing	J38	10

INTEREST INCOME

1949					1949				
Dec	31	Closing	J37	460	Dec	31	Balance	✓	450
						31	Adjusting	J36	10
				460					460
1950									
Jan	2	Reversing	J38	10					

The treatment of accrued interest on notes receivable illustrates the method of handling items of accrued income in general. If, in addition to accrued interest on notes receivable, there are other items of accrued income at the end of a fiscal period, separate accounts may be set up to record the assets arising from the income that will be received in a subsequent period. Each of these accounts will be of the same nature as the account with interest receivable. When such items

are numerous, one asset account, termed Accrued Receivables, may be opened. All accrued assets may be recorded as debits to this account instead of to separate accounts. In this case the nature of each item should be stated in the Items column of the ledger account. These accrued assets are reported on the balance sheet as current assets. Whether the one account or separate accounts are set up to record the accrued receivables, the proper income accounts are credited for the income earned during the period but not yet collected. The accounts thus reflect the accrued income. This income is reported on the profit and loss statement as income of the period just ended.

QUESTIONS

1. Classify the following items as deferred charges to expense or deferred credits to income:

(a) Subscription payments received in advance by a publisher.
(b) Property taxes paid in advance.
(c) Advertising literature on hand.
(d) Life-insurance premiums received by an insurance company.
(e) Prepaid rent income received on property owned.
(f) Interest received in advance by a bank for discounting a note.
(g) Interest paid in advance at the time a note was discounted at the bank.
(h) A fire-insurance premium prepaid by a business.

2. Thomas Mitchell, the manager of a weekly newspaper in a town with a population of ten thousand, records receipts from subscriptions as income and payments of expenses as operating costs. He contends that this plan is satisfactory since the receipts from subscriptions and the payments of expenses are uniform from year to year. What are the advantages and the disadvantages of this method?

3. The O'Brien Publishing Company publishes magazines and collects subscriptions and advertising in advance. In both instances the income accounts are credited when cash is received. If no adjusting entries are made, will income be overstated or understated? What adjusting entries should be made in each case? Are reversing entries needed?

4. Classify the following as (a) deferred charge; (b) deferred credit; (c) accrued income; (d) accrued expense.

(1) Sales Salaries Payable.
(2) Interest Receivable.
(3) Prepaid Rent Income.
(4) Prepaid Insurance.

5 The weekly pay roll of T O Elliott is $300 This amount is paid on Saturday of each week December 31 is a Thursday What adjustment is required to record the accrued wages at that time?

6 Describe the entries marked (a), (b), and (c) in the following account

WAGES OF SALES CLERKS

19—							
Dec	31	Balance	3 632 90			(b)	3 689 90
		(a)	57 00				
			3 689 90				3,689 90
						(c)	57 00

What is the date of each entry?

7 H F Brown closes his books monthly He owes $5,000 on a 6% note on which the interest is payable semiannually His customers owe him $10 000 which amount is represented by several notes, each due 6 months from date and bearing interest at 6% (a) Describe the method by which he will find the amount of accrued interest at the end of each month (b) How will the accrued interest be recorded? (c) Will reversing entries be equally necessary for the accrued interest on both the note payable and the notes receivable?

8 Give entries in general journal form for the following

Oct 17 Received a $2 400 90-day note bearing interest at 6%
Dec 31 Made an adjusting entry for accrued interest on the note of October 17
Jan 2 Made a reversing entry for accrued interest
Jan 9 Discounted the note at a discount rate of 6%

9 On May 1 a small part of the building occupied by the Atlas Mercantile Co was rented at an annual charge of $1,500 This amount was received on May 2 and was recorded as a credit to Rent Income (a) What entries should be made on December 31 when the books are closed and on January 2? (b) If the $1,500 had been credited to Prepaid Rent Income, what entries would be required?

10 The Lyall Publishing Co publishes a magazine for which it receives subscriptions for one-, two-, and three year periods At the time the remittance is received for each subscription, the liability account Prepaid Subscriptions is credited (a) What adjusting entry is needed at the end of a fiscal period? (b) Is a reversing entry required at the beginning of the next fiscal period?

PROBLEMS

1. The records of Walter Collins need the following annual adjustments in order to prepare statements for the year ended December 31, 1950:

(1) The store supplies account shows a debit balance of $500. Store supplies on hand cost $100.

(2) All insurance policies were purchased on January 1, 1950, and were charged to Prepaid Insurance. Premiums in the amount of $450 run for three years, and premiums of $80 expire in one year.

(3) The rental lease provides that the rent each year shall be computed at 4% of gross sales ($200,000) less the minimum rental already paid of $500 a month.

(4) One year's advertising, $1,000, to run from April 1, 1950, was charged to Advertising Expense.

(5) Salesmen are to receive a bonus of $6,000 and office employees are to receive a bonus of $1,000. (Salaries Payable)

(6) Interest income at 6% has been earned on a note receivable of $2,000 from July 1, 1950.

(7) Interest is to be accrued at 6% from November 1, 1950, on a $10,000 note payable.

(8) On October 1, 1950, Collins discounted at the bank his own note for $8,000. Interest Expense was debited with $320 bank discount for six months.

(9) On September 1, 1950, the account Miscellaneous Rent Income was credited with $600, representing six months' rent to March 1, 1951, received from a nearby store for space occupied in Mr. Collins' warehouse.

Instructions: (1) Prepare adjusting entries as of December 31, 1950.
(2) Prepare the necessary reversing entries as of January 2, 1951.

2. The balances in the income and expense accounts of the Ballard School of Television for the three months ended March 31 of the current year, before adjustments, are:

Tuition Income..........	$8,500	Rent Expense.............	$1,500
Instructors' Salaries........	2,700	Interest Expense...........	200

Adjusting entries based on the following information are required in order to determine the net profit for the quarter ended March 31 of the current year.

(a) Tuition income includes $500 of unearned tuition.
(b) School supplies used, $1,000.
(c) Interest accrued on notes received from students, $50.
(d) Accrued salaries due instructors, $300.
(e) On February 1 the school's note for $10,000 was discounted at the bank. Interest Expense was debited for $200, the bank discount for four months.

Instructions: (1) Prepare adjusting journal entries. In determining interest expense, use even months.

(2) Open a profit and loss summary account and income and expense accounts In addition to those listed above with March 31 balances before adjustments accounts will be needed for School Supplies Used and Interest Income Arrange these accounts in the proper order (Note that asset and liability accounts are not opened, although they are used in the journal entries)

(3) Record the March 31 balances in the proper accounts and post the adjusting entries to the income and expense accounts only

(4) Prepare and post separate closing entries to close each income account, each expense account, and the profit and loss summary account. Indicate in the Items columns of the profit and loss summary account the source of each income or expense such as Tuition Income,' 'Instructors' Salaries" and 'Rent Expense

(5) Prepare a classified profit and loss statement from the data in the profit and loss summary account

3 The account balances in the ledger of the Moss Music Co on December 31 the end of the fiscal year, were as follows

Cash	$14 089 78	Sales	$98 163 40
Notes Receivable	8 650 00	Sales Returns and Allow	857 90
Accounts Receivable	2,594 13	Purchases	61,890.33
Merchandise Inventory	32 684 10	Freight In	4 216 90
Store Equipment	4 000 00	Purchases Ret and Allow	1 248 25
Office Equipment	1,075 50	Sales Salaries	7,200 00
" Supplies	2,468 75	Delivery Expense	3 869 40
Office Supplies	429 80	Advertising Expense	1,587 50
Prepaid Insurance	1 200 00	Misc Selling Expense	321 98
Prepaid Rent Expense	10 800 00	Office Salaries	2 400 00
Notes Payable	8,400 00	Misc General Expense	895 61
Accounts Payable	6,702 27	Interest Income	1,268 40
Prepaid Rent Income	600 00	Purchases Discount	524 65
G L Moss Capital	50 000 00	Interest Expense	543 80
G L Moss Personal (dr)	4 800 00	Sales Discount	326 50

The data for adjustments were

(a) Merchandise inventory, December 31, $30,863 70
(b) Store supplies inventory, December 31, $427 39
(c) Office supplies inventory, December 31, $31 20
(d) Expired insurance as follows on merchandise, $695, on store equipment, $80, on office equipment $25
(e) Rent expense for the year, $3 600
(f) Rent income for the year, $300
(g) Bonus payable to employees, 10% of sales salaries and 10% of office salaries (Credit Salaries Payable)
(h) Accrued interest on notes receivable, $199 50
(i) Prepaid interest on notes receivable, $20
(j) Accrued interest on notes payable, $136
(k) Prepaid interest on notes payable, $25

Instructions (1) Prepare an eight-column work sheet for the year ended December 31 of the current year

(2) Prepare a profit and loss statement and a balance sheet.

(3) Record adjusting, closing, and reversing entries

CHAPTER XIII

VALUATION OF CURRENT ASSETS

NATURE OF CURRENT ASSET ADJUSTMENTS In the previous chapter accruals and deferrals were discussed as adjustments required to correct the accounts at the end of a fiscal period. The amounts required for these adjusting entries were relatively easy to compute because they were based on known facts and accepted procedures. For example, an interest adjustment is based on a known amount of principal, a known interest rate, and a set period of time. In determining the amount of interest to be accrued or deferred, there is only one correct answer, since all the elements entering into the calculation are known.

In this and the following chapter, additional asset account adjustments that involve estimated rather than known factors are discussed. The amount of cash that will be collected from a given amount of receivables is an estimate. It may be based on a considerable amount of past experience, but there is no positive proof that "history will repeat itself." The factors entering into the ability of each of the customers to pay in full are too varied to permit exact calculation. It is therefore necessary to estimate the amount of receivables that will not be collected and to set up the loss from bad debts as an expense of the current period.

While the valuation of merchandise inventory uses a different accounting procedure than the valuation of receivables, it will be shown that the adjustment of inventory also requires an estimating process.

VALUATION ACCOUNTS When information regarding a balance sheet item should include two amounts, it is customary to show this information by the use of a *valuation account*. The account that measures the decrease to be applied to the first account is called a valuation account. For example, the accounts receivable balance shows the total due from customers and agrees with the sum of all the customers' accounts in the special accounts receivable ledger. Since some of these accounts will probably prove uncollectible, it is desirable to show the estimated uncollectible amount as a subtraction from the total of receivables. In nonaccounting terms this is shown as follows:

Total due from all customers	$12,000
Estimated uncollectible amount	600
Current value of accounts receivable	$11,400

The amount of the estimated uncollectible receivables, or bad debts, is set up in a separate valuation account called Reserve for Bad Debts An accounts receivable account and a reserve for bad debts account are shown in T form below

Accounts Receivable		Reserve for Bad Debts	
Balance 12 000			600

The first item is a debit representing the total claims against customers The second is a credit representing the estimated amount that will be uncollectible The amount shown on the balance sheet is the net amount of the two account balances, $11,400 The account with the smaller balance is the valuation account The purpose of a valuation account is to preserve in the records statistical data and at the same time to make possible the reporting of the effective amount applicable at present to the account in question

ESTIMATED EXPENSES AND VALUATION ACCOUNTS Since estimated loss from uncollectible accounts and other estimated expenses are subject to later correction, the prevailing accounting practice is to set up valuation accounts to accumulate the effect of these estimated periodic adjustments If the best possible estimate of bad debts incidence is 1 per cent of sales based on past experience, it may come about that the use of this percentage will accumulate a total in the valuation account that is obviously too large Since the estimates are accumulated in a separate account, it is a relatively easy matter to make a correcting entry to bring the situation more into accord with the facts

IDENTIFYING BAD DEBTS EXPENSE WITH SALES Businessmen have learned by experience that during each year they sell merchandise to some customers who fail to pay their accounts This is true no matter how carefully they may select those to whom they sell on account

Since sales are made on account, bad debts or uncollectible receivables are often not ascertained until an accounting period subsequent

to that in which the sales were made. Losses from bad debts are properly chargeable, however, to the period in which the credit is granted. At the end of each accounting period provision must therefore be made for losses on accounts receivable resulting from the sales of that period. For example, on December 31, 1949, David Hardy has $20,000 due from customers. It is probable that he will be unable to collect this entire amount. He does not know which customers will not pay, but he does know from past experience that about ½ of 1 per cent of net sales will be uncollectible. If his net sales volume for 1949 is $140,000, the estimated uncollectible amount is $700. The amount that he expects to collect on 1949 sales, then, is $140,000 – $700, or $139,300.

The following adjusting entry is made at the end of the fiscal year:

Dec. 31	Loss from Bad Debts	700	
	Reserve for Bad Debts		700
	To provide for uncollectible accounts estimated at ½ of 1 per cent of sales.		

The percentage of bad debt losses to sales can be based either on total sales volume or on sales made on account as distinguished from cash sales. For instance, if David Hardy's cash sales for 1949 were $105,000 and his sales on account were $35,000, the percentage to be used would be 2 per cent of account sales instead of ½ of 1 per cent of total sales.

METHOD OF SHOWING BAD DEBTS ON THE FINANCIAL STATEMENTS The amount of estimated uncollectible receivables must appear on the balance sheet, and the expense resulting from estimated losses from bad debts must appear on the profit and loss statement. The balance sheet item will appear as a deduction from receivables; the profit and loss statement item, as a general expense.

For example, it is not proper for David Hardy to show accounts receivable on the balance sheet as $20,000, even though the specific receivables that may prove bad are not yet known. Allowance must be made for the $700 that will probably prove uncollectible. The $700 is therefore subtracted from the $20,000 owed by customers, and the accounts receivable are shown on the balance sheet at the net amount of $19,300.

Accountants and businessmen believe it best to show on the balance sheet the gross amount of the accounts receivable with the estimated allowance for bad debts subtracted from it for two reasons: (1) the amount of accounts receivable expected to prove uncollectible is an

estimate and may have to be adjusted and (2) the gross amount agrees with the subsidiary customers ledger

The estimated allowance for bad debts is usually called *reserve for bad debts* If this method is used by David Hardy, his accounts receivable and reserve for bad debts will be reported on the balance sheet in the following manner

Accounts Receivable	20 000	
Less Reserve for Bad Debts	700	19 300

The provision for loss from bad debts represents a cost of operating the business and should therefore be reported as an expense on the profit and loss statement There is a difference of opinion among accountants concerning the classification of this expense Since the granting of credit usually rests with the credit department a non selling department it is treated as a general expense in this text

ACCOUNTING FOR UNCOLLECTIBLE ACCOUNTS When a claim against a customer proves worthless it is charged against the reserve for bad debts by debiting Reserve for Bad Debts and crediting the account with the customer Thus if an account of $300 owed by T M Mason which appears in the accounts receivable ledger of David Hardy is definitely ascertained to be uncollectible on February 15 1950 the following general journal entry will be made

Feb 15	Reserve for Bad Debts	4	300	
	Accounts Receivable — T M Mason	3/✓		300
	To write off the account as uncollectible			

As indicated by the two notations in the posting reference column the credit item is posted both to the accounts receivable account in the general ledger and to the customer s account in the accounts receivable ledger When posted this entry will close the uncollectible account of *the customer in the accounts receivable ledger*

After this entry is posted the reserve for bad debts account of David Hardy appears as follows

Reserve for Bad Debts

1950 Feb	15		J14	300	1949 Dec	31	Balance	J12	700

In the previous illustration it was assumed that the customer's account was wholly uncollectible In many instances it is possible to

collect a percentage of the bad receivable. In this case, only the uncollected portion is charged to the reserve for bad debts. For example, assume that on February 15 T. M. Mason owed $500 and paid 40 cents on the dollar. The entry in general journal form would be:

Feb. 15	Cash	1	200	
	Reserve for Bad Debts	4	300	
	Accounts Receivable — T. M. Mason	3 ✓		500
	To write off 60 cents on the dollar as uncollectible.			

If the allowance set aside at the close of a period has been estimated exactly, it will equal the amount of accounts receivable ascertained to be worthless and charged to the reserve account. This will rarely, if ever, occur. The reserve for bad debts account may have a debit or a credit balance at the end of a fiscal period. The allowance for bad debts provided for at the close of the period is combined with this balance, and the total is carried forward into the next period. As was explained previously, this total is subtracted from the total of the accounts receivable on the balance sheet.

BAD DEBTS COLLECTED Sometimes a customer's account that was thought to be uncollectible and that was charged against the reserve for bad debts account is subsequently collected. Such a collection should be shown in the customer's account so that his account will contain all the information needed for credit purposes. The amount that was formerly written off as a bad debt is re-entered in the customer's account in the accounts receivable ledger. Reserve for Bad Debts is credited to correct the entry that was made when the account was judged to be uncollectible.

For example, if T. M. Mason, whose account was closed on February 15 because it was believed to be uncollectible, pays on June 20, 1950, the $300 he owes, the entries may be made in general journal form as follows:

June 20	Accounts Receivable — T. M. Mason	3/✓	300	
	Reserve for Bad Debts	4		300
	To reinstate the account charged off as uncollectible on February 15, 1950.			
20	Cash	1	300	
	Accounts Receivable — T. M. Mason	3/✓		300
	In full of account.			

When these entries are posted, the account with T. M. Mason will show all of the information about the bad debt and its collection. Reserve for Bad Debts will show a correction entry for the charge-off that was in error.

AGING THE ACCOUNTS RECEIVABLE The estimated bad debt loss for any given period is usually based on and related to the sales volume for the same period. However, the bad debt loss can also be related to accounts receivable. When this is done, the estimate is most accurately made by aging the accounts receivable.

At the end of the fiscal period a schedule may be prepared which ages the accounts receivable. This schedule shows (1) the name of each customer, (2) the amount owed by each customer, and (3) the age of the account. The amounts owed are placed in columns according to the age of the account. For example, when the accounts receivable are aged at the end of December, all amounts owed by customers for sales made in December would be placed in a column headed "Current." Amounts owed on sales made in November would be placed in a column headed "Over 30 Days." Amounts owed on sales made in October would be placed in a column headed "Over 60 Days." When these columns are totaled, the accountant knows what amount of accounts receivable is current and what amounts are older. He is then able to judge whether or not the balance in the reserve for bad debts is adequate in relation to the balance of accounts receivable.

NOTES RECEIVABLE AND RESERVE FOR BAD DEBTS When notes are received from customers in payment of accounts, they, like accounts receivable, may prove uncollectible. The reserve for bad debts is set up to take care of uncollected notes as well as uncollected accounts. In fact, an uncollected note is often the result of an attempt to collect an account that is not too good. The amount charged periodically to bad debts expense should provide a reserve that covers not only bad accounts but also bad notes.

IMPORTANCE OF INVENTORY AMOUNT The valuation of the inventory amount is important largely because of its size and the effect of this size on the net profit. If the inventory is ten times the net profit, a variation of 10 per cent in the amount of the inventory might double the profit shown or wipe it out entirely. As the largest item among the current assets, the amount of inventory is the most important single factor in current ratio and in working capital calculations. In a mercantile business, inventory valuation is probably the most important adjustment made at the end of an accounting period. A small error in this one item may be more serious than the omission of an entire adjustment affecting other balance sheet and profit and loss statement amounts.

CONSERVATIVE VALUATION METHOD The conservative method of valuing inventory at the lower of cost or market was explained in Chapter II. It provides a low amount for the balance sheet and causes the profit and loss statement to show a low net profit figure. It postpones the favorable effect of market price increases until the goods are sold in the next fiscal period, and it anticipates the unfavorable effect of market price decreases. It causes the gross profit figure to provide for inventory declines due to falling market prices.

Assume that David Hardy buys merchandise for $20,000 and sells one half of it for $15,000. Because of a declining market, the goods remaining that cost $10,000 could now be purchased for $8,000. Using the lower of cost or market to value this inventory, the profit and loss statement would appear as follows:

Sales		$15,000
Cost of Goods Sold:		
Purchases	$20,000	
Inventory	8,000	
Cost of Goods Sold		12,000
Gross Profit		$ 3,000

In this case the actual cost of goods sold was $10,000 and the loss from a declining market price was $2,000. The gross profit figure of $3,000 is a combination of a margin of $5,000 less an inventory loss of $2,000.

On the other hand, a rising market would benefit the following fiscal period under this plan of inventory valuation. If the inventory costing $10,000, as above, would now cost $12,000, the valuation shown on the balance sheet would be $10,000 and the gross profit would be $5,000. Since retail prices would be going up with wholesale prices, the following period would show a larger gross profit on the sale of these goods than on goods purchased during that period at the higher prices. The balance sheet figure of $10,000 would likewise show a figure $2,000 under the market at the balance sheet date.

CHOOSING THE COST FIGURE FOR INVENTORIES In a changing market where prices are rising or falling, the cost figure to be used for inventory price may be determined in several ways. The prevailing practice is to use the latest invoice prices for inventory valuation. This is called the *first-in, first-out method,* since goods sold or used are charged out first. To illustrate, assume three purchases at successive price increases, as follows:

(1)	Oct. 7	300 units @ $1.00	$ 300
(2)	14	400 units @ $1.20	480
(3)	25	300 units @ $1.30	390
		Total	$1,170

The inventory at the end of the period consists of 500 items, as follows:

200 units purchased Oct. 14 @ $1.20	$240
300 units purchased Oct. 25 @ $1.30	390
Inventory valuation	$630

It is assumed here that the units sold or used were those first acquired; hence the phrase "first-in, first-out." The cost of goods sold would be made up of:

300 units purchased Oct. 7 @ $1.00	$300
200 units purchased Oct. 14 @ $1.20	240
Cost of goods sold	$540

Since this method gives a lower figure for cost of goods sold than for inventory, a more conservative cost method would be to charge cost of goods sold at the latest invoice prices and value inventory at the earliest prices. This cost method is known as *last-in, first-out*. It is assumed that the goods sold consist of:

300 units purchased Oct. 25 @ $1.30	$390
200 units purchased Oct. 14 @ $1.20	240
Cost of goods sold	$630

This makes the inventory consist of all the goods purchased on Oct. 7 and half of those purchased on Oct. 14, which at cost would show an inventory value of $540.

It should be observed in the previous illustration that the direction of the price level determines which of the two methods is more conservative. If the price level is moving up, the last-in, first-out method gives a lower or more conservative balance sheet figure for merchandise inventory and reduces the gross profit on sales. If the price level is moving down, the first-in, first-out method gives the lower amount for the inventory and a correspondingly lower gross profit.

There is considerable debate in accounting circles currently regarding the relative merits of these two methods. They are commonly referred to as *fifo* and *lifo* — the letters standing for "first-in, first-out"

and "last-in, first-out." Proponents of *fifo* insist that their method accords with the physical facts that goods first received are actually first sold and that the inventory shown on the balance sheet is shown at its correct value. Those supporting *lifo* point out that a given amount of inventory is a requirement for a going business and that their method synchronizes cost and selling prices. Although both methods are permitted for income tax purposes, the prevailing sentiment seems to favor *fifo*.

TAKING THE INVENTORY Counting the items that comprise the inventory is a difficult process that ordinarily must be done when business operations have ceased. For this reason physical inventories are commonly taken after the close of business at the end of the month or at the end of the year. One inventory taker counts the units and a second puts down the count on an inventory sheet. After the inventory taking is completed, the items on the sheets are priced and the amounts determined. This arithmetical process can be done while business is going on, but the counting must be done during inactivity.

A very important phase of inventory taking is making the inventory items correspond to the records of sales and purchases. Items included in the sales journal may still be in the warehouse awaiting shipment. Of course such items belong to the customer and should be omitted from the inventory. On the other hand, invoices for purchases may be entered in the purchase journal before the goods are received. These goods should be included in the inventory although they are still in transit.

PERPETUAL INVENTORIES Because of the work involved and the short time available, complete physical inventories tend to be taken only once a year. Inventories for monthly reports are estimated in various ways, or *book inventories* are used. A book inventory or perpetual inventory is like setting up an account on paper with each class of items purchased but not showing the amount in dollars. As items are received, they are charged *"In"*: as they are sold, they are credited *"Out."* The balance between total "In" and total "Out" should agree with the inventory count.

The book inventory is sometimes called a perpetual inventory since the paper record shows the quantity of goods that should be on hand at any time. Entries are made on the book inventory from invoices or reports of materials received in the "Received" or "In"

columns; from sales invoices or sales tickets for sales of the item in the "Sold" or "Out" column. A running balance of the number of items on hand is kept in a third column.

This record of merchandise is similar to the accounts receivable and accounts payable subsidiary ledgers, except that dollar amounts are not used. Each merchandise item has an account, and the sum of these accounts at any time gives the quantity of merchandise that should be on hand.

ESTIMATED INVENTORIES While estimated inventories lack the accuracy of physical or book inventories, they are sometimes used to save labor. Usually estimated inventories are based on the prevailing margin in the business. Thus, if sales for an accounting period are \$10,000 and the prevailing margin is 30 per cent, cost of sales should be \$7,000 Using the items in the upper part of the profit and loss statement, it is possible to calculate an estimated inventory. Assume in the above case that the physical inventory at the beginning of the year was \$14,000 and that purchases during the first month were \$8,000. The current inventory is estimated as follows:

Sales		\$10,000
Cost of Goods Sold		
Beginning Inventory	\$14,000	
Purchases	8,000	
Cost of Goods Handled	\$22,000	
Less Ending Inventory	X	
Cost of Goods Sold	.	7,000
Gross Profit	..	\$ 3,000

QUESTIONS

1. Brown's balance sheet on December 31, 1949, showed Reserve for Bad Debts at $2,000; the trial balance on December 31, 1950, showed the same account with a debit balance of $500. What balance will the balance sheet on December 31, 1950, show if 1% of sales is charged annually to bad debts and sales for 1950 amount to $300,000?

2. Jergens receives word that Cotton and Davis in bankruptcy can pay only 40¢ on the dollar. Give the entry for the receipt of the check when the debit balance of the Cotton and Davis account is $500.

3. John Snyder receives a check for $360 from the receiver for Brown and Brower, representing 60¢ on the dollar on their account. Give the journal entry showing receipt of the check.

4. The trial balance of Boles and Hammond shows a credit balance of $700 in Reserve for Bad Debts. The sales for 1949 amount to $200,000 and the charge for bad debts is $\frac{1}{2}\%$ of sales. If Accounts Receivable on the same trial balance shows a balance of $20,000, what would be the net amount of accounts receivable on the December 31 balance sheet?

5. In the previous question is the existence of a $700 credit balance on the trial balance proof that previous charges for bad debts have been too large? Explain.

6. "After all, the provision for bad debts losses is largely a matter of individual judgment, so that the relationship between the asset and the reserve has little, if any, significance even to the trained analyst." Do you agree?

7. "The valuation of inventories has a significant bearing on the determination of net income." "Frequently the inventory is the largest and most important current asset." Are these statements related? Explain.

8. What will be the effect on the current profit and loss statement of an overvaluation of $1,000 on inventory. How will this affect the profit and loss statement for the succeeding year? Explain.

9. The balance sheet of a well-known milling corporation shows:

Inventories	$38,134,000
Less Valuation Reserves	6,238,000
	$31,896,000

Why do you think so substantial a reserve is used?

10. J. J. Christian wishes to estimate his inventory on January 31, the first month in his calendar year. His physical inventory at the end of the previous year was $50,000. In January his sales were $25,000 and his purchases were $20,000. If his margin is 40%, what is his estimated inventory on January 31?

PROBLEMS

1. The following transactions were selected from those completed by James Pierce

Dec 31, 1948	Recorded the provision for loss from bad debts at 1% of sales of $250,000
Apr 7, 1949	Wrote off the account of Rex Morgan, $1,950, as uncollectible
Aug 9, 1949	Edgar Risk paid 50 cents on the dollar on his $1,000 account. The balance of the account was written off as uncollectible
Dec 31, 1949	Recorded the provision for loss from bad debts at ¾ of 1% of sales of $400,000
May 28, 1950	Wrote off the account of Jack Houston, $2,500, as uncollectible
Oct 23, 1950	Received $300 from Edgar Risk in partial payment of his account written off on August 9, 1949
Dec 31, 1950	Recorded the provision for loss from bad debts at ½ of 1% of sales of $540,000

Instructions (1) Record the foregoing transactions in general journal form

(2) Open a reserve for bad debts account Post the journal entries to the account and rule and balance the account at the end of 1949 and 1950

2 Stephen Brent is the national distributor of the New Era (tank type) and the Old Line (beater type) vacuum cleaners He has home salesmen in all the larger cities of the United States, working on a commission basis At the end of each month, each salesman reports his sales and also the number of cleaners and the retail or selling price of parts which he has on hand The inventory figure for Brent s financial statements is obtained by using the lower of cost or market in pricing the cleaners on hand and by taking two-thirds of the retail price of parts on hand reported by salesmen

Mr Brent s trial balance on January 31 of the current year, which represents the end of one month's operations, is as follows

Cash	$ 23,875	
Receivable from Salesmen	50,000	
Reserve for Bad Debts		$ 3,500
Merchandise Inventory	18,000	
Notes Payable		15,000
Stephen Brent, Capital		75,000
Stephen Brent, Personal	10,000	
Sales		150,000
Purchases	98,000	
Operating Expenses (control)	45,400	
Purchases Discount		2,500
Interest Expense	725	
	$246,000	$246,000

Adjustment data:

(a) Bad debts, 1% of sales (debit Operating Expenses).
(b) Prepaid interest on notes payable, \$150.
(c) Interest expense accrued on notes payable, \$25.
(d) Inventory based on following data: salesmen report the following on hand on January 31:

Retail value of parts, \$9,000 (take two-thirds for cost).
250 New Era cleaners (cost \$40, but manufacturer's price to distributors advanced on January 31 to \$42.50).
400 Old Line cleaners (cost \$26.50, but manufacturer on January 28 advised new price to distributors of \$25).

Instructions: (1) Prepare an eight-column work sheet for the monthly period.

(2) Prepare a profit and loss statement and a balance sheet.
(3) Record adjusting, closing, and reversing entries.

3. The profit and loss statement of Frank Lear for the year ended December 31 of the current year is as follows:

			%
Sales		\$90,000	100
Cost of Goods Sold:			
Merchandise Inventory, January 1	\$15,000		
Purchases	53,800		
Merchandise Available for Sale	\$68,800		
Less Merchandise Inventory, December 31	14,800		
Cost of Goods Sold		54,000	60
Gross Profit on Sales		\$36,000	40
Operating Expenses		30,000	$33\frac{1}{3}$
Net Profit		\$ 6,000	$6\frac{2}{3}$

The accountant in auditing Mr. Lear's records finds the following:

(a) 1,000 units of Item A with a cost of \$5 and a market value of \$6.70 were inclnded in the inventory at market value.
(b) 500 units of Item B with a cost of \$8 and a market value of \$7 were included in the inventory at cost.
(c) An order of merchandise ready for shipment to George Farmer on December 31 was included in the inventory at a cost of \$2,800 and was also included in sales at \$4,200.
(d) An order of merchandise had been made up on December 31 ready for shipment to Mercury, Inc. on January 10. It had not been included in sales (\$1,000) and was also not included in the inventory (cost \$600).
(e) An order of merchandise ready for shipment to Reeder Bros. on December 31 for \$2,000 was not included in sales and was included in inventory at \$1,200.

(f) Merchandise ready for shipment to the Scott Corporation on December 31 for $8,000 was not included in sales and was not included in the inventory (cost $4,800).

(g) Merchandise purchased by Mr. Lear for $1,200 was on hand and included in the inventory, but the invoice was not received until January 8 and had not been entered on the books.

(h) An invoice covering merchandise purchased for $800 was entered on the books on December 30 but inasmuch as the goods were in transit on December 31, they were overlooked in taking the inventory.

Instructions: (1) Prepare a table as follows indicating the effect of each of the foregoing situations on Sales, Purchases, and Merchandise Inventory.

	Sales		Purchases		Merchandise Inventory	
	Decrease	Increase	Increase	Decrease	Increase	Decrease
(a)						
(b)						
(c)						
etc						

(2) Prepare a corrected profit and loss statement based on the corrections determined in (1)

(3) Compute a new set of percentages for the profit and loss statement prepared in (2)

(4) What are the significant changes in amounts and percentages between the two profit and loss statements?

CHAPTER XIV

VALUATION OF FIXED ASSETS—DEPRECIATION

IMPORTANCE OF ESTIMATED DEPRECIATION There comes a time when most fixed assets, such as buildings and equipment, are no longer useful. Whatever expenditure was made at the time the fixed asset was acquired must be charged off to operating expense if business capital is to be maintained. The decrease in the value of a fixed asset because of wear and of the passing of time is referred to as *depreciation*. Because of the great value of the fixed assets in many businesses, estimating the depreciation expense applicable to any accounting period is often one of the most important of all accounting adjustments.

The estimate of the depreciation expense of one fiscal period might be based on the size of earnings if there were any considerable relationship between earnings and the wearing out of fixed assets; but there is no such relationship, as is evidenced by the wearing out of fixed assets even though a loss is shown year after year. Depreciation might be based on the estimated cost of a new asset to replace the old, except that logically it is not the new asset that is wearing out. Depreciation affects the fixed assets used in operating the business and should be based on their actual costs.

Since fixed assets last through a number of accounting or fiscal periods, it is necessary that some reasonable method be used to distribute the depreciation cost among the periods. The most common method of distributing the amount of depreciation to be charged to each period is to distribute the cost of the fixed asset equally over all of the periods in the estimated life of the asset. This method is known as the *straight-line method*. When the straight-line method is used, a fixed asset that cost $1,000 and that has an estimated life of 10 years will depreciate at the rate of $100 a year. The straight-line method will be used in the examples given in the first part of this chapter. Other methods will be discussed later.

DEPRECIATION AND FIXED ASSETS The amount of depreciation to be included as operating expense in any one period depends upon the useful life of the fixed asset. If Peter Vance purchased a bookkeeping machine for $600, which, it was estimated, would last five years, the annual depreciation would amount to $120. This expense

is just as real as sales salaries, except that the amount charged is based on an estimate The machine may last only four years in which case the annual charge should be $150, or it might last six years and then the annual charge should be only $100

Since depreciation is at best an estimate, it is usually considered desirable to report separately the original cost of the asset and the amount that has been charged off as depreciation The amount that has been charged off as depreciation is shown in a valuation account known as *Reserve for Depreciation* The difference between the original cost and the amount in the valuation account is known as the *book value*

The effect of the valuation account on the office equipment account of Peter Vance if the bookkeeping machine mentioned above was the only office equipment owned and if the estimated life was 5 years is illustrated in the following table

End of Year	Cost of Asset	Valuation Account	Book Value
1	$600	$120	$480
2	600	240	360
3	600	360	240
4	600	480	120
5	600	600	0

It is estimated that the bookkeeping machine which cost $600 will last 5 years Instead of showing the successive annual values of the machine as $480 $360 $240 $120 and nothing the valuation account is increased $120 at the end of the first, second third fourth and fifth years The increase in the valuation account each year has the same effect on the asset as a similar decrease would have if it were applied directly to the asset account

The effect on the balance sheet of the asset valuation accounts is not to increase the liabilities and the proprietorship but rather to reduce the assets Such items are sometimes reported on the liabilities and proprietorship side of the balance sheet but this method results in overstating the assets by the total of the balances of the valuation accounts The more approved method therefore is to show the balances of these accounts as deductions from the assets to which they apply

If J J Kling has at the opening of his business on January 2 1949 two fixed assets — store equipment valued at $35 000 on which the depreciation is estimated to be 10 per cent a year, and office equipment valued at $4 500 on which the depreciation is estimated to be 20 per

cent a year — the fixed assets may be reported as follows on the balance sheet prepared on December 31, 1949, at the end of the first year of operation:

Fixed Assets:			
Store Equipment	$35,000		
Less Reserve for Depreciation	3,500	$31,500	
Office Equipment	$ 4,500		
Less Reserve for Depreciation	900	3,600	
Total Fixed Assets			$35,100

Section of Balance Sheet Showing Fixed Assets and Depreciation Reserves

METHOD OF RECORDING DEPRECIATION If the original cost of each fixed asset and the amount that the asset has depreciated are to be shown as separate items on the balance sheet, it is evident that two accounts must be kept with each fixed asset that is subject to depreciation. The first account will show the cost of the asset, and the second account will show the accumulated depreciation on this asset.

First Account—Cost

Office Equipment

Debit	Credit
4,500	

Second Account—Depreciation

Reserve for Depreciation of Office Equipment

Debit	Credit
	900
	900
	1,800

An adjusting entry is made at the end of each fiscal period setting up the depreciation expense and increasing the balance in the reserve for depreciation account. For example, in the above illustration J. J. Kling purchased on January 2, 1949, at a cost of $4,500 office equipment with an estimated useful life of 5 years. On December 31, 1949, the following adjusting entry was made to record depreciation expense:

Dec. 31	Depreciation of Office Equipment	900	
	Reserve for Depr. of Office Equipment		900
	To record the yearly depreciation of office equipment.		

A similar entry would be made at the end of each fiscal year, taking into account additional depreciation expense for equipment purchased during the year. The depreciation expense account would be closed

into Profit and Loss Summary each year, while the credits to Reserve for Depreciation of Office Equipment would accumulate in the valuation account. At the end of the fifth year, December 31, 1953, the office equipment account and the valuation account Reserve for Depreciation of Office Equipment of J J Kling appear as follows:

OFFICE EQUIPMENT

1949									
Jan	2		J10	4,500					
1950									
Jan	3		J24	1,900					
Nov	1		J31	600					
1951									
May	1		CP12	600					
Sept	1		CP14	300					
				7,900					

RESERVE FOR DEPRECIATION OF OFFICE EQUIPMENT

					1949				
					Dec	31		J20	900
					1950				
					Dec	31		J36	1,300
					1951				
					Dec	31		J53	1,500
					1952				
					Dec	31		J72	1,580
					1953				
					Dec	31		J81	1,580
									6,860

The calculation of the annual depreciation charge is illustrated in the table shown below A line is allowed for each new acquisition of office equipment, and the columns at the right provide for the accumulation of the depreciation charge year by year.

		DEPRECIATION					
DATE ACQUIRED	COST	1949	1950	1951	1952	1953	TOTAL
1-2-49	$4,500	$900	$ 900	$ 900	$ 900	$ 900	$4,500
1-3-50	1,900	—	380	380	380	380	1,520
11-1-50	600		20(1)	120	120	120	380
5-1-51	600	—	—	80(2)	120	120	320
9-1-51	300	—	—	20(3)	60	60	140
		$900	$1,300	$1,500	$1,580	$1,580	$6,860

(1) Two months (2) Eight months (3) Four months

It should be noticed that the last three acquisitions of office equipment occurred during the fiscal period rather than at the beginning. Accordingly the depreciation charge was based on the number of months the fixed asset was used in that year. For example, on office equipment purchased November 1, 1950, depreciation was computed for two months as follows: (2/12 of 20% of $600 = $20).

If the fixed asset is purchased during the month instead of at the beginning, depreciation is charged for the nearest month. For example, if the purchase is made before the middle of the month, a whole month's depreciation would be charged; if the purchase is made after the middle of the month, no depreciation would be charged for that month. Since depreciation expense is, at best, an estimate subject to error, it seems unnecessary to account for a unit of time shorter than a month. To illustrate, for a typewriter purchased on May 12, depreciation would be charged for a whole month; for a typewriter purchased on May 20, no depreciation would be charged in May.

Since depreciation is an expense, it is reported on the profit and loss statement. Depreciation of various fixed assets is classified according to the use of the assets. If the asset is used in the sales department, the depreciation is classified as a selling expense. Depreciation of store equipment is classified as a selling expense; depreciation of office equipment, as a general expense.

ACCOUNTING FOR THE DISPOSAL OF FIXED ASSETS If the estimate of the useful life of the office equipment purchased in 1949 and now fully depreciated and no longer in use was correct, the reserve and the asset would be closed off the books by the following entry:

1953			
Dec. 31	Reserve for Depr. of Office Equipment........	4,500	
	Office Equipment...		4,500
	To write off fully depreciated office equipment no longer in use.		

In actual practice, however, it is not possible to estimate depreciation so accurately. A fixed asset may be sold at its book value, for more than its book value, or for less than its book value. For example, Paul Cranmer owned a truck that cost $4,000 and that had been depreciated at the rate of $800 a year for 4 years. At the end of that time the ledger showed in the delivery equipment account the original cost value of $4,000 and in the reserve for depreciation account the total estimated depreciation of $3,200. The book value, the difference between the cost and the reserve, was therefore $800. If the truck

was sold for cash for $800, the transaction might be recorded in general journal form as follows

Jan	2	Cash	800	
		Reserve for Depr of Delivery Equipment	3,200	
		Delivery Equipment		4,000
		Sold the delivery truck for the book value, $800		

When this entry was posted, the delivery equipment account and the reserve for depreciation of delivery equipment account would be in balance

If, instead of being sold for $800, the truck had been sold for $1,100 a gain of $300 would have been made In that case the sale might have been recorded in general journal form as follows:

Jan	2	Cash	1,100	
		Reserve for Depr of Delivery Equipment	3,200	
		Delivery Equipment		4,000
		Gain on Sale of Fixed Assets		300
		Sold the delivery truck for $1,100, $300 more than its book value		

If the truck had been sold for only $650, a loss of $150 would have been incurred In that case the sale might have been recorded in general journal form as follows

Jan	2	Cash	650	
		Reserve for Depr of Delivery Equipment	3,200	
		Loss on Sale of Fixed Assets	150	
		Delivery Equipment		4,000
		Sold the delivery truck for $150 less than its book value		

If the truck had been damaged so that it had no value whatsoever, not even scrap value, and if this loss had not been covered by insurance, the following journal entry would have been made:

Jan	2	Reserve for Depr of Delivery Equipment	3,200	
		Loss by Damage to Fixed Assets	800	
		Delivery Equipment		4 000
		To record the discard of the delivery truck, which was damaged so that it had no value		

The accounts showing the gain or the loss on fixed assets are closed to the profit and loss summary account The gain on fixed assets is reported on the profit and loss statement under the heading "Other Income," and the losses on fixed assets are reported under the heading "Other Expenses."

Gains or losses on fixed assets are sometimes transferred directly to a capital account and are not reported on the profit and loss state-

ment. This plan is not recommended, however, because gains or losses on fixed assets that are used in the business must be reported for income tax purposes in the period in which they occur, and it is therefore desirable to have gains or losses shown on the profit and loss statement of the business. Furthermore, if the gains or the losses are not thus shown, the profit and loss statements for a period of years do not show the total income for those years.

ACCOUNTING FOR THE EXCHANGE OF FIXED ASSETS When a fixed asset is given in part payment for a new fixed asset, the record may be made as if there were two transactions, one the sale of the original fixed asset and the other the purchase of the new fixed asset. When this plan is followed, the trade-in allowance for the old asset is considered to be the price at which it is sold, and a gain or a loss is recorded in the same way as if the sale had been for cash. For example, assume that a truck that cost $4,000 had a reserve for depreciation of $3,200 and a book value of $800. If a new truck at the same list price were obtained for a payment of $3,000 and the old truck, the allowance of $1,000 would exceed the book value of $800 by $200. The first entry setting up the exchange value of $1,000 would be:

Reserve for Depr. of Delivery Equipment	3,200	
Exchange Value	1,000	
Delivery Equipment		4,000
Gain on Sale of Fixed Assets		200
Received an exchange value of $200 in excess of book value.		

The second entry would show the acquisition of the new truck at list price, $4,000, and the credit entry to Exchange Value would cancel the debit entry above.

Delivery Equipment	4,000	
Exchange Value		1,000
Cash		3,000
Purchased a new delivery truck.		

It is possible to combine the two entries above and to omit the exchange value item as below:

Delivery Equipment	4,000	
Reserve for Depr. of Delivery Equipment	3,200	
Delivery Equipment		4,000
Cash		3,000
Gain on Sale of Fixed Assets		200
Exchanged old truck costing $4,000 with a book value of $800 for new truck costing $4,000, receiving $1,000 exchange value for old truck.		

To illustrate the entry involved when the allowance is less than the book value assume for the same truck an allowance of $500 on the purchase of a new truck In this case the allowance received is $300 less than the book value of $800 (cost $4 000 – reserve for depreciation $3 200) The combined entry for the exchange is given below

Delivery Equipment	4 000	
Reserve for Depr of Delivery Equipment	3 200	
Loss on Sale of Fixed Assets	300	
Delivery Equipment		4 000
Cash		3 500
Exchanged old truck costing $4 000 with a book value of $800 for new truck costing $4 000 receiving $500 exchange value for old truck		

It should be noted that the full cost of the old truck, $4 000, is removed from the fixed asset account Delivery Equipment and the full cost of the new truck is debited to the same account.

For income tax purposes when a fixed asset is given in part payment for a new fixed asset that serves the same purpose as the old one no gain or loss is recognized The actual cost to the business of the new asset is considered to be the book value of the old asset plus any additional amount paid for the new asset For example, assume that a truck that cost $4 000 had a reserve for depreciation of $3 200 and a book value of $800 If a new truck was obtained for the old one and a payment of $3 000 the new truck would be recorded on the books at a value of $3 800 the sum of the payment and the book value of the old truck The entry to record this transaction in general journal form would be

Delivery Equipment	3 800	
Res for Depr of Delivery Equipment	3 200	
Delivery Equipment		4 000
Cash		3 000
Exchanged old truck that cost $4 000 and had a book value of $800 for a new truck paying $3 000 in cash		

If in the foregoing example the new truck had been obtained for the old one and a cash payment of $3 500 the general journal entry to record the transaction would have been

Delivery Equipment	4 300	
Res for Depr of Delivery Equipment	3 200	
Delivery Equipment		4 000
Cash		3 500
Exchanged old truck that cost $4 000 and had a book value of $800 for a new truck paying $3 500 in cash		

If depreciation has not been taken accurately in the past or if there has been a change in price level since the asset was acquired

recording an exchange of fixed assets in this way may cause the asset to be placed on the books at more or less than the actual cash value of the asset. The variation, however, is automatically adjusted in future years. Since depreciation is usually calculated as a percentage of the cost, recording an asset at more than its cash price will result in higher depreciation charges in the future, which will offset the inadequate depreciation that has been taken in the past. Recording an asset at less than its cash price will result in lower depreciation charges in the future, which will offset the higher depreciation that has been taken in the past.

In the preceding discussion it has been assumed that assets have been sold or exchanged at the end of an accounting period after the adjusting entry for depreciation has been made. If a fixed asset is sold or traded during an accounting period, the depreciation for the part of the period that has expired must first be recorded. The additional entries required by the sale or the exchange are then made in the manner discussed in the preceding paragraphs.

SPECIAL LEDGERS FOR EQUIPMENT The general ledger account for equipment usually includes all of the equipment that is used for one function of the business. Typical accounts are Office Equipment, Store Equipment, and Delivery Equipment.

For example, the office equipment account includes all kinds of office equipment, such as desks, chairs, tables, files, and mechanical equipment used in the office. If there is to be an accurate record of depreciation, there must be a special ledger for office equipment in which an account for each item is kept. The office equipment account in the general ledger and its accompanying valuation account, Reserve for Depreciation of Office Equipment, become controlling accounts for the accounts in the special ledger. The balance of the office equipment account equals the cost of such assets on hand as shown in the office equipment ledger; the balance of the reserve for depreciation of office equipment account agrees with the sum of the balances of the depreciation reserves in the office equipment ledger. This relationship is similar to that described in the previous chapter for accounts receivable and accounts payable.

For example, assume that the office equipment consists of a desk, a chair, and a typewriter, costing \$100, \$16, and \$150 respectively and with estimated useful lives of 20, 16, and 5 years. At the end of the second year, the controlling accounts in the general ledger and the special ledger accounts would appear as follows:

GENERAL LEDGER

Office Equipment

1950								
Jan	3		CP1	266				

Reserve for Depreciation of Office Equipment

				1950			
				Dec	31	J9	36
				1951			
				Dec	31	J20	36

OFFICE EQUIPMENT LEDGER

Fixed Asset Record

Description Desk — Account Office Equipment

Age when acquired new — Estimated life 20 yrs — Estimated salvage value none — Annual depreciation $5.00

Date Purchased		Description (Cost)	Amount	Year	Rate	Amount (Depreciation Record)	Total to date
1950				19 50	5%	5 00	5 00
Jan.	3	Oak desk	100 00	19 51	5%	5 00	10 00
				19			
				19			
				19			
				19			
				19			
				19			
				19			
				19			

Fixed Asset Record

Description Chair — Account Office Equipment

Age when acquired new — Estimated life 16 yrs — Estimated salvage value none — Annual depreciation $1.00

Date Purchased		Description (Cost)	Amount	Year	Rate	Amount (Depreciation Record)	Total to date
1950				19 50	6¼%	1 00	1 00
Jan.	3	Oak chair	16 00	19 51	6¼%	1 00	2 00
				19			
				19			
				19			
				19			
				19			
				19			
				19			
				19			

FIXED ASSET RECORD

Description Typewriter Account Office Equipment

Age when acquired new Estimated life 5 yrs. Estimated salvage value none Annual depreciation $30.00

COST				DEPRECIATION RECORD			
Date Purchased		Description	Amount	Year	Rate	Amount	Total to date
1950				19 50	20%	30 00	30 00
Jan.	3	Typewriter #54078	150 00	19 51	20%	30 00	60 00
				19			
				19			
				19			
				19			
				19			
				19			
				19			
				19			
				19			
				19			

SOLD, EXCHANGED, OR DISCARDED									
Date		Explanation	Amount Realized	[illegible]	[illegible]	Debit Reserve	19		
							19		
							19		

In a similar manner Store Equipment, Delivery Equipment, and other fixed asset accounts may serve as controlling accounts for subsidiary equipment ledgers.

BLANKET RATES If special ledgers having accounts with individual fixed assets are not kept, it is possible to use a *blanket rate* of depreciation applied to the cost of all the fixed assets of one kind. Assume a blanket rate for office equipment of 6⅔ per cent. This rate applied to the office equipment situation above would give a depreciation charge of $17.73 (6⅔% of $266), and the accounts at the end of the second year would appear as follows:

OFFICE EQUIPMENT

1950									
Jan.	3		CP1	266					

RESERVE FOR DEPRECIATION OF OFFICE EQUIPMENT

					1950				
					Dec.	31		J9	17.73
					1951				
					Dec.	31		J20	17.73

While this method of accounting for depreciation requires fewer records and involves less detail, it does not provide so accurate a record or so satisfactory a treatment. It is not possible to check the accuracy of the estimated depreciation charges when an asset is exchanged, discarded, or sold.

METHODS OF COMPUTING DEPRECIATION Depreciation is only an estimate, but it is usually possible to make the estimate with reasonable exactness. When a business has had considerable experience with a certain kind of fixed asset, the rate of depreciation can be based on past experience. When the experience of the business is insufficient to be used as a basis, assistance can be obtained from published tables of depreciation rates. One of the important published tables is that of the Bureau of Internal Revenue. It lists rates of depreciation that may be used for income tax purposes. For example, in Bulletin F, revised January, 1942, office equipment is assigned a blanket rate of 6⅔ per cent or a composite life of 15 years. If office equipment is segregated into groups, the life for furniture, fixtures, and filing cases is 20 years; for mechanical equipment, 8 years. Individual pieces are given the following useful life periods:

Adding machines	10 years	Lockers	25 years
Bookkeeping machines	8 years	Typewriters	5 years
Cabinets and files	15 years	Chairs, heavy	16 years
Desks	20 years	Tables	15 years

The amount of depreciation to be charged to a fiscal period is usually expressed as a certain percentage of the original cost of the fixed asset, or of the amount to be depreciated if there is a scrap value. This method of calculating depreciation is based on the principle that depreciation is a function of time. The rate of depreciation is occasionally expressed in terms of units of output or service. When the output or the service fluctuates from period to period, the output or service basis probably provides a more accurate method than the time basis. Because business people believe that depreciation is, at best, an estimate and that the time basis is likely to be about as accurate as the output basis, the time basis, because it is simpler, is more generally used.

Output Method. If the extent to which a fixed asset is used varies greatly from year to year, the *output method* has certain advantages. It charges the cost of the machine in proportion to its use, rather than in proportion to its age. For example, if the estimated output of a

machine costing $1,000 is 50,000 units and production requirements cause these units to be spread over 5 years as shown below, the output method would make the annual depreciation the varying amounts shown instead of $200 per year.

Year	Volume of Production	Amount of Depreciation
1	5,000 units	$ 100
2	2,500	50
3	7,500	150
4	20,000	400
5	15,000	300
	50,000 units	$1,000

Reducing-Fraction Method. If a fixed asset, such as an automobile, is to be used for a period of 5 years, the repair charges during the first year may be very low but they may increase until during the last year they represent a substantial item. If the straight-line method of depreciation is used, the cost for depreciation and repairs tends to increase from year to year. In order to equalize this expense, a method may be used by which the greatest charge for depreciation is made during the first year of the life of the asset and the charge is gradually decreased for future periods.

One such method is known as the *reducing-fraction method.* To illustrate the use of this method, assume that an automobile is purchased with the expectation that it can be used for 4 years. The cost of the property may be written off 4/10 in the first year, 3/10 in the second year, 2/10 in the third year, and 1/10 in the fourth year. The numerator of the fraction is the number of the year, the numbers being used in reverse order, and the denominator is the sum of the years. If the automobile cost $1,800, the depreciation for the four years is found as follows:

Year	Fractional Depreciation	Depreciation Expense	Reserve for Depreciation
1	4/10	$720	$ 720
2	3/10	540	1,260
3	2/10	360	1,620
4	1/10	180	1,800

The two methods explained here are sufficient to illustrate that different methods may be used according to the needs of the business. The straight-line method, however, because of simplicity and reasonable accuracy, is used most commonly.

INADEQUACY AND OBSOLESCENCE In some cases the value of a fixed asset may be decreased by a cause other than use. For example, a printing plant has a press that has been in use for only two years and is in excellent condition. Because of an increase in the business of the concern, it is found profitable to dispose of this machine at much less than its book value and to purchase a new and larger press When a fixed asset decreases in value because it must be replaced by larger equipment capable of meeting the demands of the business, *inadequacy* is said to have taken place.

The printing plant may also have a job press that must be fed by hand A new automatically fed press, however, becomes available on the market. As the new type of press will do the work much more efficiently than the old, a new press is purchased, although the first must be sold at a fraction of its book value. When an improvement has been made in the equipment available, and this improvement makes it desirable to discard the old equipment, the decrease in the value of the latter asset is known as *obsolescence.*

While obsolescence and inadequacy can be distinguished by definition from depreciation, it is customary in practice to include provision for all three factors in a single depreciation item.

DEPLETION A fourth cause of a decrease in the value of a fixed asset may be depletion. A paper mill may have a certain acreage from which wood is cut for wood pulp The value of the acreage decreases each year because the wood cut is more than the new growth This expense is known as *depletion.* A depletion account is debited for the expense of each period and a reserve for depletion account is credited for the same amount. The difference between the cost value of the acreage and the reserve is the book value

For example, if the Hamilton Paper Company estimates that the value of its timber land decreases $10,000 in a year because the amount of wood cut is greater than the new growth, an annual operating expense of this amount must be recorded and the books must show that the acreage is worth less than it was at the beginning of the period. This is accomplished by the following journal entry made on December 31:

Dec. 31	Depletion of Timber Land	10,000	
	Reserve for Depletion of Timber Land		10,000
	To record the decrease in the value of the timber land, resulting from depletion.		

The depletion account represents an expense of the period, but the reserve for depletion account will be retained on the books to show the decrease in the value of the asset.

QUESTIONS

1. "All machinery is on an irresistible march to the junk heap, and its progress, while it may be delayed, cannot be prevented by repairs." Discuss the application of this sentence to depreciation procedures in accounting.

2. If a trial balance shows Store Equipment, $5,000, and Reserve for Depreciation of Store Equipment, $3,500, and the balance sheet at the end of the same fiscal period shows Reserve for Depreciation of Store Equipment, $4,000, how old is the store equipment and what is the rate of depreciation?

3. (a) What is the trade-in value of machinery purchased for $1,000 and depreciated at the rate of 10% if at the end of seven years the machinery is traded in at its book value? (b) What journal entry would be made to record the depreciation at the end of each of the seven years? (c) What entries would be made at the end of the seventh year if the old machinery is sold for $500? for $150?

4. Plastic Designs, Inc. has a machine costing $5,000 that is estimated to have a 5-year life and to produce 50,000 units during that time. Assume that the production is 4,000, 3,000, 8,000, 18,000, and 17,000 units for the five years respectively. (a) What would the depreciation be in each of the five years by the straight-line method, the output method, and the reducing-fraction method? (b) In this case, which of the three methods do you consider to be most desirable?

5. On January 2, 1949, Earl Jones traded his old delivery truck for a new one with a list price of $2,000 and received a $500 allowance on the old truck. The old truck cost $1,800 on September 1, 1945, and was depreciated on December 31 each year on the assumption that it would be used 5 years and then have a $300 trade in value. The balance on the new truck was paid in cash. (a) What entry was made to record depreciation for 1948? (b) What was the book value of the truck when it was traded in? (c) Give the compound journal entry to record acquisition of the new truck. (d) Under income tax practice, what would this entry be?

6. The Deane Manufacturing Co. has fixed assets that, according to estimates, can be used for the following periods: building, 50 years; office furniture, 15 years; office equipment, 10 years; machinery, 8 years. How should the rate of depreciation for each of these fixed asset groups be determined? Are these blanket rates or unit rates?

7. During a fiscal period, the Barton Coal Co. mines 4,000 carloads of coal. It considers this to be about 1% of the coal in the mines. Record in a journal entry, omitting amounts, the decrease in the asset value of the mines.

PROBLEMS

1 The following transactions and adjustments take place in the business of John Rhodes

Jan 2 1950	Purchased for cash four machines at $3,600 each Each machine has an estimated life of 10 years and a trade-in value at the end of that time of $600
Dec 31 1950	The adjusting entry is made to record depreciation for the year
Jan 2 1951	One machine is sold for $3 500 in cash
July 1 1951	A second machine is traded in for a new one with a list price of $4 850 An allowance of $3 000 is received on the old machine cash being paid for the balance The estimated life of the new machine is 15 years with a trade in allowance of $350 at the end of that year (Record this transaction as if the machine had been sold for the trade in value)
Dec 31 1951	The adjusting entry to record depreciation on machinery for the year is made

Instructions (1) Record in a general journal the foregoing transactions and adjusting entries Depreciation is charged off annually on a straight-line basis

(2) Open ledger accounts for Machinery and Reserve for Depreciation of Machinery and post the entries affecting these two accounts

(3) Record the transaction of July 1 1951 according to the method required for Income tax purposes but do not post to the accounts.

2 Ralph Edwards uses two trucks to carry on his business During the years 1949 51 the following transactions relating to his trucks took place

Apr 1 1949	Purchased one Ajax truck for cash $3 600 The estimated life was 3 years
July 1 1949	Purchased a Mercury truck for cash, $2,000 The estimated life was 4 years
Dec 31, 1949	The adjusting entry was made to record depreciation for the year
July 1, 1950	The Ajax truck was traded in on a new Phoenix truck The list price of the new truck was $4 200 with $2 000 allowed on the old truck and the balance paid in cash The new truck has an estimated life of 6 years (Record the transaction as if the machine had been sold for the trade in value)
Dec 31, 1950	The adjusting entry was made to record depreciation for the year
July 1, 1951	The Mercury truck was sold for $1,200 cash and a new Vulcan truck was purchased for cash, $3 000 The new truck was estimated to have a 5 year life
Dec 31, 1951	The adjusting entry was made to record depreciation for the year

Instructions (1) Journalize the foregoing transactions

(2) Open general ledger controlling accounts for Trucks and Reserve for

Depreciation of Trucks. Upon the completion of each journal entry, post to these two accounts.

(3) Set up separate accounts in the subsidiary ledger for each truck. After each transaction, record all the necessary details in the subsidiary ledger accounts.

(4) Reconcile the balances in the two control accounts with the details found in the subsidiary truck ledger as of December 31, 1951.

(5) Record the transaction of July 1, 1950, according to the method required for income tax purposes, but do not post to the accounts.

3. The accounting records of the Empire Photostatic Company include controlling accounts for Equipment and Reserve for Depreciation of Equipment. The details of each piece of equipment are carried in a subsidiary equipment ledger in which costs are entered as debits and depreciation data as credits to the accounts. The following transactions affecting equipment took place over a two-year period ending December 31, 1950:

Jan. 2, 1949. Purchased for cash the following equipment:

Linoleum	$240
Photographing machine	320
Display case	200
Signs in front of side of building	150

Jan. 2, 1950. Sold the photographing machine for $250 cash and purchased a new one for cash, $640.

The company estimates the life of its equipment by reference to Bulletin "F" released by the Treasury Department. For the types of equipment purchased above, these lives are recognized:

Display cases	20 years	Photographing machine	16 years
Linoleum	8 years	Signs, board	10 years

Instructions: (1) Record the foregoing transactions in general journal form. At the end of each year record the annual depreciation based on the table given above.

(2) Open general ledger accounts for Equipment and Reserve for Depreciation of Equipment and post to these accounts.

(3) Open the following subsidiary ledger accounts: Display Case; Linoleum; Photographing Machine; Signs. Post costs and depreciation data to these accounts.

(4) Prove the balances in the two controlling accounts.

4. The account balances in the ledger of the Commercial Equipment Company at the end of the quarterly fiscal period March 31 were as follows:

Cash	$ 5,646.86	Office Supplies	$ 118.50
Notes Receivable	1,980.00	Prepaid Insurance	160.00
Accounts Receivable	10,596.43	Store Equipment	2,980.00
Reserve for Bad Debts	187.50	Reserve for Depreciation of Store Equipment	426.00
Merchandise Inventory	18,750.85	Office Equipment	620.00
Store Supplies	346.10		

Reserve for Depreciation of Office Equipment	$ 87 50	Sales Salaries	$4 5[illegible]2 5[illegible]
Notes Payable	2,400 00	Delivery Expense	215 3[illegible]
Accounts Payable	3,105 21	Advertising Expense	307 5[illegible]
David Cooper Capital	27,500 00	Miscellaneous Selling Expense	210 72
David Cooper, Personal (dr)	900 00	Office Salaries	1,250 00
Sales	54 796 40	Rent Expense	600 00
Sales Returns and Allowances	86 40	Miscellaneous General Expense	201 10
Purchases	38 907 85	Interest Income	32 45
Freight In	372 81	Purchases Discount	348 1[illegible]
Purchases Returns and Allowances	127 46	Interest Expense	31 [illegible]
		Sales Discount	163 12

Data for adjustments on March 31 were as follows

(a) Reserve for bad debts, an additional ½ of 1% of gross sales or $273 98
(b) Merchandise inventory, $13,420 72
(c) Store supplies inventory, $172 25
(d) Office supplies inventory, $64 15
(e) Prepaid insurance $40
(f) Estimated depreciation of store equipment, $36
(g) Estimated depreciation of office equipment, $12 50
(h) Accrued salaries $232 50, divided as follows sales salaries, $182 50 and office salaries $50
(i) Accrued interest on notes receivable, $14 20
(j) Accrued interest on notes payable $17 80

Instructions (1) Prepare an eight-column work sheet
(2) Prepare a profit and loss statement and a balance sheet.
(3) Record the adjusting, closing, and reversing entries

PRACTICE SET No. 1

Part 2

Part 2 of Practice Set No. 1 is a continuation of Practice Set No. 1 given after Chapter 10. The same books of original entry and ledgers are to be used.

Narrative of Transactions for November

November 1. Mr. Benton invested an additional $10,000 in cash in the business.

November 1. Mr. Benton decided to buy the building and equipment that he had been renting. He bought the building for $30.000, the land for $10.000, the store equipment for $4,000, and the office equipment for $3,000. He paid $15,000 in cash and gave a 6 per cent mortgage for $32,000.

November 1. Sent a check to Howard Auto Supplies in payment of invoice of October 22.

November 1. Paid $240 for premium on insurance on building and equipment.

November 2. Made the following purchase on account:
Purchase No. 430, Canton Tire Company, merchandise, $1,310.70. Invoice dated November 1; terms, 2/10, n/30.

November 2. Received $300 for three months' rent of space in the building.

November 3. The auditor called attention to the fact that a reserve for bad debts had not been set up for the preceding months and that an adjustment should be made. Set up a reserve for bad debts of $91.50. Debit the capital account.

November 3. Sent a check to Eustis Supply Co. for invoice of October 4.

November 3. Received from Johnson Tire Shop check for $270.48 in payment of the sale of October 24 and from Highway Service Station check for $306.40 in payment of the sale of October 24.

November 3. Made the following sale on account:
Sale No. 799, Brownway Garage, $558.50.

November 3. Paid cash for miscellaneous office supplies, $150.

November 3. Paid cash for repairs in store room, $15.85.

November 3. Paid the following salaries and wages: sales, $330; receiving and shipping force, $70; office, $110.

November 3. Received $321.45, cash sales for November 1–3.

Post from the various journals to the customers' and creditors' accounts in the accounts receivable and the accounts payable ledgers.

November 5. Made the following sales on account:
Sale No. 800, Central Service Station, $686.25.
Sale No. 801, Graham Auto Repair Co., $300.55.

November 6. Borrowed $3,000 from the bank on his 60-day non-interest-bearing note. The bank charged 6 per cent interest in advance. Received credit for the proceeds, $2,970.

November 15. Received from Central Service Station check for $672.52 in payment of the sale of November 5 and from Graham Auto Repair Co. check for $294.54 in payment of the sale of November 5.

November 15. Sent a check to Perkins Battery Co. for invoice of November 5 less credit memorandum received November 10 and less discount.

November 15. Made the following purchases on account:

Purchase No. 437, Randolph Supply Co., store equipment, $127.50. Invoice dated November 14; terms, net 30 days.

Purchase No. 438, Perkins Battery Co., merchandise, $428. Invoice dated November 14; terms, 1/10, n/30.

November 16. Paid freight in charges amounting to $83.20.

November 16. Made the following sales on account:

Sale No. 806, Becker Tire Shop, $893.50.

Sale No. 807, Dorton & Dewey, $918.40.

November 17. Received from Walker Tire Co. a credit memorandum of $50 for allowance on damaged merchandise on invoice of November 10.

November 17. Sent Marshall Radio Corporation a check for invoice of November 7.

November 17. Received from Dorton & Dewey their 60-day, 6 per cent note for $570.40, dated November 17, in payment of sale of October 20.

November 17. Allowed Evans Garage credit of $10 for damaged merchandise on the sale of November 13.

November 17. Paid the following salaries and wages: sales, $330; receiving and shipping force, $70; office, $110.

November 17. Received $596.60, cash sales for November 12–17.

Post from the various journals to the customers' and creditors' accounts in the accounts receivable and the accounts payable ledgers.

November 19. Received from Rogers Service Station check for $393.81 in payment of the sale of November 9 less credit for return of November 10, and from Portland Transfer Co. check for $681.98 in payment of the sale of November 9.

November 19. Paid $234 cash for miscellaneous store supplies.

November 19. Received from Langdon & Fillmore their 60-day, 6 per cent note for $1,471.50, dated November 19, in payment of sale of October 20.

November 20. Made the following purchases on account:

Purchase No. 439, Canton Tire Co., merchandise, $2,621.40. Invoice dated November 19; terms, 2/10, n/30.

Purchase No. 440, Eustis Supply Co., office supplies, $37.60. Invoice dated November 19; terms, net 30 days.

November 20. Sent a check to Walker Tire Co. for invoice of November 10 less credit memorandum received November 17 and less discount, and a check to Howard Auto Supplies for invoice of November 10.

November 21 Made the following sales on account:
Sale No 808, Highway Service Station, $592 75
Sale No 809, Johnson Tire Shop, $609 20

November 22 Sent a check to Whitman Supply Co for invoice of October 23

November 23 Received from Langdon & Fillmore check for $477 46 in payment of the sale of November 13 and from Evans Garage check for $441 59 in payment of the sale of November 13 less the allowance for damaged merchandise received November 17

November 23 Made the following purchases on account
Purchase No 441, Marshall Radio Corporation, merchandise, $670 Invoice dated November 22 terms 2 10, n 30
Purchase No 442, Randolph Supply Co, store supplies, $21 40 Invoice dated November 22 terms, net 30 days

November 24 Allowed Johnson Tire Shop credit of $21 05 for merchandise returned on the sale of November 21

November 24 Sent a check to Perkins Battery Co for invoice of November 14

November 24 Made the following sales on account.
Sale No 810 Thompson Garage, $563 35
Sale No 811, Central Service Station, $924 20

November 24 Received from Canton Tire Co a credit memorandum of $42 for return of merchandise on invoice of November 19

November 24 Paid the following salaries and wages sales, $330, receiving and shipping force, $70, office $110

November 24 Received $701 20, cash sales for November 19-24

Post from the various journals to the customers' and creditors' accounts in the accounts receivable and the accounts payable ledgers

November 26 Discounted at the bank at 6 per cent the Dorton & Dewey note for $570 40 and received credit for the proceeds, $571 20

November 26 Sent a check to Fustis Supply Co for invoice of October 17

November 26 Received from Becker Tire Shop check for $875 63 in payment of the sale of November 16 and from Dorton & Dewey check for $900 03 in payment of the sale of November 16

November 27 Made the following sales on account:
Sale No 812, Brownway Garage, $545 30
Sale No 813, Graham Auto Repair Co, $847 05

November 28 Made the following purchases on account·
Purchase No 443, Canton Tire Co, merchandise, $1,377 60 Invoice dated November 27, terms, 2 10, n 30
Purchase No 444, Whitman Supply Co, advertising supplies, $65 Invoice dated November 27, terms, net 30 days

November 28 Sent a check to Randolph Supply Co in payment of Invoice of October 29

November 29. Made the following sales on account:
Sale No. 814, Rogers Service Station, $798.50.
Sale No. 815, Becker Tire Shop, $918.90.

November 29. Sent a check to Canton Tire Co. in payment of invoice of November 19.

November 30. Allowed Graham Auto Repair Co. credit of $7.50 for merchandise returned on the sale of November 27.

November 30. Purchased new office equipment for which he gave old office equipment and $206 in cash. The old office equipment was on the books at a cost value of $300. The depreciation for the month of November on the old equipment traded in was $6.

November 30. Paid $95 for advertising in the local newspaper.

November 30. Paid freight in charges amounting to $78.75.

November 30. Withdrew $200 in cash for personal use.

November 30. Paid bills for heat, light, and power, $75. (Charge Miscellaneous General Expense.)

November 30. Paid the telephone bill, $24.75. (Charge Miscellaneous General Expense.)

November 30. Received $541.50, cash sales for November 26–30.

The cash balance is $2,527.41. Prove cash.

Post to the accounts in the accounts receivable and accounts payable ledgers.

Post to the general ledger accounts from the general journal and the general columns of the purchases journal, the cash receipts journal, and the cash payments journal.

Total and rule the various special journals and post the totals to the appropriate general ledger accounts.

PERIODIC SUMMARY

The additional data required for adjustments are:

Merchandise inventory	$23,101.75
Accrued income:	
Interest accrued on notes receivable	2.70
Loss from bad debts: An additional ½ of 1% of net charge sales.	
Depreciation:	
Store equipment	33.86
Office equipment	22.50
Building	75.00
Deferred charges to expense:	
Prepaid interest on notes payable	18.00
Inventories of supplies: Store supplies	282.75
Office supplies	356.00
Advertising supplies	19.55
Insurance expired	95.00

CHAPTER XV

ACCOUNTING PROCEDURES

RECORDING ROUTINE The minimum of commonly used records was explained in an early chapter where the accounting system consisted of a journal, a ledger, a trial balance, and the financial statements. This threefold sequence of journal, ledger, and statements was at the time stated to be adequate for any business not interested in efficiency and economy in recording. If efficiency and economy are disregarded, this simple routine of recording is sufficiently flexible to take care of any transaction, no matter how complex it may be.

From a single journal record and a single ledger to special journals and special ledgers, recording routine has been elaborated to achieve economy and efficiency. These objectives have been accomplished at the expense of simplicity, and routine has become increasingly complex. Special journals result in less flexible records, but they save much labor in recording and posting. Subsidiary ledgers complicate the posting from journals and require the use of statements with supporting schedules, but they provide useful means of checking the accuracy of summaries. Special columns in books of original entry make these books more complex, but they reduce posting labor in transactions that occur frequently. Business papers prepared in typewriting and bookkeeping machines, with several copies available, provide opportunity for further economies. Standard routine is constantly being modified in the interest of economy and efficiency.

Whatever variations may be made in recording practice, there still remain four well-defined steps. These four steps are:

1. The business paper, evidencing the transaction.
2. The journal record, showing accounts affected.
3. The ledger record, classifying transactions under accounts.
4. The statements, summarizing financial progress.

In this chapter particular attention will be given to the accounting procedures incident to the use of (1) a bank account as a substitute for cash; (2) supplementary records not integral with the accounting system to provide useful information; and (3) the combined cash journal as a substitute for special journals in small businesses. In the following chapter, a more involved and complete procedure, the voucher system, will be described.

BUSINESS PAPERS AND BOOKKEEPING MACHINES Modern bookkeeping practice makes more and more use of machines to provide the requisite detail at a low cost. Through the use of carbon copies it is possible to prepare simultaneously (1) the business paper, (2) the journal record, and (3) the posting to the subsidiary ledger. For example, the sales invoice, the record in the sales journal, and the posting to the customer's account may be provided on a machine by a single recording. This function of providing duplicate copies on machines may be greatly expanded and in large companies it is.

Bookkeeping machines are frequently equipped with accumulating mechanisms which provide totals of amounts recorded. Columnar totals are thus provided at the same time as the duplicate recording described in the previous paragraph. For example, when checks are drawn for payroll purposes, columnar totals for regular pay, overtime pay, income tax withholdings, and old age pensions may be provided and at the same time carbon copies for the payroll record and the employee's record may be prepared. These two features, (1) *duplicating* and (2) *accumulating*, are distinct advantages of mechanical accounting or machine bookkeeping.

It has been estimated that in modern big business enterprises 90 per cent of bookkeeping records are products of mechanical equipment. The larger the enterprise, the greater the advantage in the use of machines. Machines may be highly specialized and through their specialization great volumes of work may be accomplished at a relatively low cost. This low cost has made possible the recording of an amount of detail that would otherwise be prohibitively expensive. In addition to this saving in costs, the use of machines has the advantages of greater speed and accuracy, plus a legibility that cannot generally be attained in handwritten records.

CHECK REGISTERS Control over business transactions may be aided by issuing pads of business papers serially numbered, to those responsible for the transactions and requiring a record of all the business papers used. For example, checks are often numbered serially in a checkbook. Accompanying the pad of checks there is a book containing a line for the record of each check, the number of the check having been entered on the line. This book contains columns for the essential information appearing on each check. Such a book is called a *register*.

A check register that takes the place of the cash payments journal and also registers serially numbered checks is shown on page 257. The

account First National Bank takes the place of the cash account. A separate line is reserved for each serially numbered check, and on that line is entered the information about the check that is considered most useful in a book record. All other details of each payment are available in the file containing carbon copies of the checks or on the checkbook stub. The canceled check will eventually be returned and will form the principal part of the paper record.

CHECK REGISTER

DATE		DRAWN TO ORDER OF	ACCOUNT DEBITED	CHECK NO.	POST. REF.	GENERAL LEDGER DR.	ACCOUNTS PAYABLE DR.	PURCHASES DISCOUNT CR.	FIRST NATIONAL BANK CR.
1950									
Oct.	1	George Boothe	George Boothe	64	√		500 00	10 00	490 00
	1	Voided check		65					
	1	Lang Realty Co.	Rent Expense	66	543	125 00			125 00
	1	Petty Cash	Petty Cash	67	112	30 00			30 00
	3	Office Equip. Co.	Office Equip. Co.	68	√		342 64		342 64
	31	Office Salaries	Office Salaries	90	541	420 00			420 00
						723 50	3,946 40	31 68	4,638 27
	31	Totals			√	723 50	3,946 40	31 68	4,638 27
						(√)	(212)	(451)	(111)

Check Register

It will be noticed that a check mark (√) is used to indicate posting to an account in the accounts payable ledger, and a number is used for each item posted to an account in the general ledger. This method illustrates posting to loose-leaf ledgers. When loose-leaf ledgers are used, a new account may be inserted at any time in its proper place. For a creditor's account, the proper place is determined alphabetically; for a general ledger account it is determined by the place of the item on the balance sheet or the profit and loss statement.

In numbering general ledger accounts, it is desirable to have the various digits in the number represent major and minor account classifications. A commonly used decimal system sets up the first number as one of the major account classifications, as illustrated below:

100 — All asset accounts
200 — All liability accounts
300 — All balance sheet proprietorship accounts
400 — All income accounts
500 — All expense accounts

The second digit represents a minor classification as:

110 — All current asset accounts
120 — All fixed asset accounts, etc.
510 — All cost of goods sold accounts
520 — All selling expense accounts

The third digit represents the particular account as

112 — Petty Cash
543 — Rent

Such a practice obviously prevents paging of accounts but provides a useful flexibility

On Line 2 of the check register a report is made that check No 65 was not used Every serially numbered check is thus accounted for on the check register

DOUBLE RECORD OF CASH One of the most common accounting procedures is set up to secure effective control over cash By depositing all cash receipts in a bank the business has a secondary record of its cash transactions in the shape of a periodic bank statement This accounting procedure provides what is technically known as a *double record of cash* The checks deposit slips and bank statement provide an outside record of cash transactions

In order that the bank s record may correspond with the cash record all cash received must be deposited in the bank If that is done it follows that all cash disbursed must be withdrawn from the bank by means of checks The bank s record of deposits will correspond to the cash receipts record the bank s record of checks paid will correspond to the cash disbursements record, and the balance on the bank s monthly statement should agree with the cash balance of the business These balances will agree except for the adjustment items described in the discussion of the reconciliation of the bank statement in Chapter IX

PETTY CASH When a business has established a policy of depositing all cash receipts and making all payments by checks it will probably find that some small payments can be made more conveniently with cash A fund for such payments is established by drawing a check payable to the order of Petty Cash for the estimated amount of the payments during a certain period of time frequently one month Check No 67, the fourth entry in the check register on page 257, shows the entry to establish the petty cash fund

The check is cashed by the petty cashier, and the currency is placed in a special drawer called the *petty cash drawer* As disbursements are made in currency from this drawer, they are recorded in a supplementary record known as a *petty cash book* A typical form of petty cash book is shown in the illustration on the opposite page

PETTY CASH BOOK

Date		Explanation	Vchr. No.	Receipts	Payments	Misc. Selling Expense	Misc. General Expense	Sundries: Account	Sundries: Amount
1950 Oct.	1	Check No. 67		30 00					
	2	Telegram	1		1 30		1 30		
	2	Soap and towels for store	2		1 25	1 25			
	5	Twine for store	3		1 28			Store Supplies	1 28
	8	Entertaining a customer	4		8 90	8 90			
	12	Call on a customer	5		1 75	1 75			
	13	Registration of a letter	6		85		85		
	18	Express on a purchase	7		1 72			Freight In	1 72
	20	Stationery	8		6 50			Office Supplies	6 50
	20	Totals		30 00	23 55	11 90	2 15		9 50
	20	Balance			6 45				
				30 00	30 00				
	20	Balance		6 45					
	20	Check No. 79		23 55					

Petty Cash Book

In this illustration provision is made for a record of serially numbered receipts or vouchers to evidence petty cash disbursements. These receipts provide a control over the petty cash fund and may be used as the basis for the replenishing check. A petty cash voucher to support the payment of October 2 for soap and towels is shown below:

PETTY CASH VOUCHER

No. 2 Date October 2, 1950

Paid to Grant Towel Service Co.

For Soap and towels for store 1 25

PAYMENT RECEIVED MILLER & RYAN

A M Jones Approved by L. E. R.

Petty Cash Voucher

Frequently the petty cash vouchers are filed in an envelope on the back of which is a record similar to the petty cash book record shown above. This practice is just another illustration of the tendency to move away from book records.

At the end of each accounting period, before the statements are prepared, it is necessary to draw a check to replenish the petty cash fund. Otherwise, the expenses represented by the disbursements would not appear in the statements for the period. The charges made to the expense accounts when the replenishing check is recorded bring these expense items into the ledger and keep the petty cash fund at the predetermined amount. The petty cash fund will remain at the same amount unless it is decided that the fund is too large or too small.

REGISTERS AS SUPPLEMENTARY RECORDS In addition to registers that serve as special journals, and in some instances as subsidiary ledgers, there are registers that serve as supplementary records. Such registers are usually classifying and accumulating devices. Examples of such registers are the insurance policy register, the notes receivable register, the notes payable register, and the fixed assets register.

Insurance Policy Register. When there is a possibility that property may be destroyed by fire or by any other accidental cause, the owner should protect himself against such loss by entering into a contract with an insurance company. He agrees to pay to the company a certain amount in return for the protection afforded by the contract. This contract is known as an *insurance policy*, and the compensation paid to the insurance company is known as the *insurance premium*. The insurance policy is made for a definite period of time, and the premium is payable in advance.

A record of each of these policies should be kept in such a form that information pertinent to the insurance contracts can be obtained at any time. This is accomplished by keeping an insurance policy register similar to that shown on pages 262 and 263. In this record the cost of the insurance, or the premium, is divided into the monthly charges representing insurance expense.

In the illustration, the three policies carried over from previous years are shown at the top of the page that records the insurance policy history for 1950. The first two of these had only two months to run in 1950 before expiration; the third had six months. In each of these cases the monthly charges are the same as they were for the preceding period. The fourth entry records a one-year policy purchased on January 2, 1950, and charged equally to the twelve months of 1950. The fifth entry records a five-year policy purchased on March 1 for $30. Since it has 60 months to run, the monthly cost is 50 cents. The policy runs for ten months in 1950; this leaves a balance for this policy of $25 of Prepaid Insurance on December 31, 1950. The policies

INSURANCE POLICY REGISTER FOR YEAR 1950

DATE OF POLICY		POLICY NO.	NAME OF COMPANY	PROPERTY INSURED	AMOUNT	EXPIRATION DATE	UNEXPIRED PREMIUM
1945							
Mar	1	24983	Alliance Ins Co	Furniture and Fix	1,500 00	Mar 1 1950	10
1947							
Mar	1	34702	U S Fire Ins Co	Building	8,000 00	Mar 1, 1950	[illegible]
1949							
July	1	43284	Amer Auto Ins Co	Delivery Equipment	2 100 00	July 1 1950	[illegible]
1950							
Jan	2	41529	U S Fire Ins Co	Merchandise	5,000 00	Jan 2 1951	[illegible]
Mar	1	96301	Alliance Ins. Co	Furniture and Fix.	1,500 00	Mar 1, 1955	[illegible]
Mar	1	72107	U S Fire Ins Co	Building	8,000 00	Mar 1, 1953	[illegible]
July	1	49756	Amer Auto Ins. Co	Delivery Equipment	2 100 00	July 1 1951	[illegible]

Insurance Policy Register, Left Page

taken out on March 1 and July 1 also continue beyond the end of the year and have unexpired balances at the end of the year

At the end of each month the insurance expired is determined by adding the column for that month The amount thus obtained is used in the adjusting entry to record the insurance expired At the end of the year the amount of the expired premiums and the amount of the unexpired premiums are recorded in the columns at the extreme right The unexpired policies are then recorded at the top of the page for the following year

Notes Receivable and Notes Payable Registers If the notes received by a business are not too numerous they may be recorded in the general journal There is, however, important detailed information with reference to the notes that cannot be shown conveniently in the book of original entry or in the notes receivable account This informa

NOTES RECEIVABLE REGISTER

DATE RECEIVED		OUR NO.	BY WHOM PAYABLE	WHERE PAYABLE (BANK OR FIRM AND ADDRESS)	DATE OF PAPER		
					YEAR	MONTH	DAY
1950							
Jan	4	111	Henry Jameson	First National Bank of Canton	1950	Jan.	4
	9	112	C L Collins	Our office	1950	Jan	[illegible]
	13	113	Lyle & Glosser	Central Trust Co City	1950	Jan	12
	24	114	R. M Jones	Second National Bank Marion	1950	Jan	23
Feb	3	115	John F Freeman	Merchants Bank City	1950	Feb	3
	10	116	H H Wheeler	Union Bank, Akron	1950	Feb.	9

Notes Receivable Register, Left Page

INSURANCE POLICY REGISTER FOR YEAR 1950

JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	EXPIRED PREMIUM	UNEXPIRED PREMIUM 12/31/50
50	50											1 00	
2 65	2 65											5 30	
6 50	6 50	6 50	6 50	6 50	6 50							39 00	
1 66	1 66	1 66	1 56	1 67	1 67	1 67	1 67	1 67	1 67	1 67	1 67	20 00	
		50	50	50	50	50	50	50	50	50	50	5 00	25 00
		2 65	2 65	2 65	2 65	2 65	2 65	2 65	2 65	2 65	2 65	26 50	68 90
						6 00	6 00	6 00	6 00	6 00	6 00	36 00	36 00
11 31	11 31	11 31	11 31	11 32	11 32	10 82	10 82	10 82	10 82	10 82	10 82	132 80	129 90

Insurance Policy Register, Right Page

tion may include the name of the maker, where the note is payable, the date, the time, the amount, and the rate of interest. All of these facts, together with others that may be useful, may be recorded conveniently in a notes receivable register that provides a special column for each type of information. A common form of a notes receivable register is shown on page 262 and below.

A similar register may be maintained for notes payable whenever such notes are numerous. The arrangement of the notes payable register is quite similar to that of the notes receivable register. A common form is illustrated at the top of pages 264 and 265.

Fixed Assets Register. When a business has a large number of fixed assets, a record is needed to show the cost of each asset, the estimated trade-in or scrap value, the estimated life, the annual rate of depreciation, the number of years during which the asset has been owned, the

NOTES RECEIVABLE REGISTER

TIME	WHEN DUE													FACE	INTEREST RATE	DATE PAID	REMARKS
	YEAR	J	F	M	A	M	J	J	A	S	O	N	D				
60 days	1950			4										280 75	6%	Mar. 4, 1950	
30 days	1950		6											250 00	—	Feb. 6, 1950	
90 days	1950				12									500 00	6%		Discounted 2/4
60 days	1950			24										118 50	—	Dishonored 3/24	Charged to maker's account
60 days	1950				3									687 50	5%	Apr. 3, 1950	
60 days	1950				11									200 00	6%	Apr. 10, 1950	Sent to bank for collection 4/8

Notes Receivable Register, Right Page

NOTES PAYABLE REGISTER

DATE GIVEN		OUR NO.	TO WHOM PAYABLE	WHERE PAYABLE (BANK OR FIRM AND ADDRESS)	DATE OF PAPER		
					YEAR	MONTH	DAY
1950							
Jan.	10	28	Central Trust Co	Central Trust Co., City	1950	Jan	10
Jan	31	29	Panner Mfg. Co	Chase Bank, Cleveland	1950	Jan	21
Feb	9	30	First National Bank	First National Bank, City	1950	Feb	9

Notes Payable Register, Left Page

total amount of depreciation charged in previous years, and the monthly charges for depreciation during the current year. Maintaining such a record of fixed assets insures that the proper amount of depreciation will be calculated on each item and also calls attention to errors in estimates, which might otherwise be overlooked.

Since this register is used to accumulate depreciation charges, a separate page should be set up for each class of fixed assets. For example, the illustration below and on page 265 contains only office equipment and provides for a monthly charge for depreciation of office equipment. Another page would contain only store equipment and would provide a monthly charge for depreciation of store equipment. Each page in such a fixed asset register would provide detail supporting the balance of each fixed asset account in the ledger.

In some cases a card is set up for each fixed asset. If this is done, the card record amounts to a subsidiary ledger record of fixed assets. Such a record was illustrated in Chapter XIV.

THE COMBINED CASH JOURNAL In previous chapters dealing with special journals, attention was called to the fact that the transactions of one day may be found in several journals. For example, the sales transactions may be recorded in the sales journal and the cash receipts transactions of the same date, in the cash receipts journal. In order to have a complete record of the transactions of one day, reference would have to be made to each of the special journals.

FIXED ASSETS REGISTER (OFFICE EQUIPMENT) FOR YEAR 1950

DATE OF PURCHASE		NO.	DESCRIPTION	COST	TRADE-IN OR SCRAP VALUE	LIFE OF ASSET IN YEARS	ANNUAL RATE OF DEPR.	ACCRUED DEPRECIATION	
								NO. OF YEARS	AMOUNT
1942									
Jan	2	1	Office Safe	600.00		20	5%	5 yrs	[illegible]
1944									
Jan	2	2	Office Files	500.00		10	10%	6 yrs	[illegible]

Fixed Assets Register, Left Page

NOTES PAYABLE REGISTER

TIME	WHEN DUE YEAR	J	F	M	A	M	J	J	A	S	O	N	D	FACE	INTEREST RATE	DATE PAID	REMARKS
60 days	1950			11										500 00	—	Mar. 10, 1950	
30 days	1950			2										260 83	—	Mar. 2, 1950	
90 days	1950					10								1000 00	6%	May 10, 1950	

Notes Payable Register, Right Page

In a small business it is possible to arrange transactions in chronological order and to have the labor-saving benefits of the special journal by the use of special columns in a single journal. Since most transactions affect cash, this journal is commonly called the *combined cash journal.* Whenever transactions affect an account sufficiently often, a special column is set up for that account. Transactions affecting accounts without special columns are entered in a pair of columns headed "General Ledger." This treatment is similar to that described in Chapter IX for the cash receipts journal and the cash payments journal.

If a business follows the practice of depositing all cash in the bank, as was described earlier in this chapter, the cash columns may be headed "Cash" or they may be considered to be the record with the bank and may be headed with the name of the bank.

A combined cash journal is shown on pages 266 and 267. It should be noted that the columns set up with special headings have already been illustrated before in this and previous chapters.

This type of single-journal record is frequently found in ready-made bookkeeping systems for small businesses and professional men. The column headings are printed in to meet the requirements of the business for which the system is designed. In some cases, the accountant is called upon to determine the column headings and to write them in himself on a blank form obtained from a commercial stationery store.

FIXED ASSETS REGISTER (OFFICE EQUIPMENT) FOR YEAR 1950

JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	CARRIED FORWARD	DISPOSITION
2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	270 00	
4 16	4 16	4 16	4 16	4 17	4 17	4 17	4 17	4 17	4 17	4 17	4 17	350 00	

Fixed Assets Register, Right Page

COMBINED CASH JOURNAL

	Cash		Check No	Date		Description	Post Ref	General Ledger		
	Dr	Cr						Dr	Cr	
				19[illegible]						
1		100 00	121	Nov	1	Rent Expense	41	100 00		1
2	313 [illegible]				2	Hauser and Hauser				2
3					[illegible]	Brinkman Company				3
4					3	Walter A. Kendall				4
5					3	Damon Bros — Notes Payable	18		500 00	5
6		7 50	122		4	Miscellaneous Expense	49	7 50		6
7		21[illegible] 00	123		4	I. R. Morrison				7
29	315 0[illegible]				29	Randolph and Brower				29
30					29	Dwight H. Ebersole				30
31	[illegible]13 50				29	*Cash sales*				31
32		[illegible]	132		30	Freight In	29	62 95		32
33		2[illegible] 00	133		30	Payroll				33
	2 420 15	*1 645 75*						*412 83*	*610 00*	
31	2 1[illegible] 15	1 [illegible] 75			30	Totals		412 83	610 00	31
	(1)	(1)						(√)	(√)	

Combined Cash Journal Left Page

SUMMARIZING IN BUSINESS RECORDS When a single journal and a single ledger were used in Chapter VI transactions affecting each account were summarized in the ledgers. For example, all sales transactions were found individually in the sales account and the total of sales was obtained by adding these items in the sales account. Later, when the sales journal was set up to save time and labor, this summarizing was done in the special journal, the ledger account Sales no longer showed the detail but only the total for the month. These conditions are illustrated below.

SALES JOURNAL

Oct	1		200
	1		100
	2		300
	2		200
	2		350
	3		100
	3		150
	31		400
		Sales Cr	16 450

(The journal record takes over the *summarizing* formerly found in the sales account.)

SALES

	Oct	31	16 450

(The detail of sales for October has been removed from the ledger account. A single posting saves posting labor.)

FOR MONTH OF NOVEMBER, 1950

		Accounts Receivable Dr.	Accounts Receivable Cr.		Accounts Payable Dr.	Accounts Payable Cr.	Sales Discount Dr.	Purchases Discount Cr.	Sales Cr.	Purchases Dr.	Sales Salaries Dr.	
1												1
2	√		320 00				6 40					2
3				\		498 50				498 50		3
4	√	285 00							285 00			4
5				√	500 00							5
6												6
7				√	250 00			5 00				7
29	√		321 50				6 43					29
30	√	119 45							119 45			30
31									743 80			31
32												32
33											250 00	33
		975 60	*832 50*		*1,450 72*	*1,695 30*	*16 70*	*18 80*	*2,737 95*	*1,695 30*	*500 00*	
34		975 60	832 50		1,450 72	1,695 30	16 70	18 80	2,737 95	1,695 30	500 00	34
		(4)	(4)		(20)	(20)	(52)	(50)	(26)	(28)	(31)	

Combined Cash Journal, Right Page

The accounting periods summarized in the special journals need not correspond to the periods summarized in the ledger or covered by the statements. For instance, the cash receipts and cash payments journals, or the cashbook, could be closed at the end of each week; the sales and the purchases journals could be closed twice a month; the trial balance could be taken once a month; and the balance sheet and the profit and loss statement could be prepared only annually. The accounts affected by many transactions could be summarized often; those affected by a small number of transactions, less often.

When business papers become an integral part of the accounting system, they can sometimes be used as summarizing devices. When they are so used, a journal may contain a record of only the total for the day. The amounts of cash sales for a day may be listed on an adding machine from the sales tickets; the tickets may be filed as supporting records; and only one entry need be made in the cash receipts journal. In this case summarizing has been moved forward another step, to the business papers; individual transactions no longer appear in the journal.

THE FUNCTION OF RECORDS Business records must be so constructed that at any time in the future it will be possible to trace a transaction from the record of its occurrence to its effect on some item in one of the two principal statements. Or, reversing the

procedure, it should be possible to account for any amount on either statement by tracing backward to the first record of the transactions affecting this amount This may be illustrated graphically as follows:

Trace forward ⟶

Transaction — Paper Journal — Ledger Work Sheet Statement

⟵ Trace backward

If a sale of $250 is made on account, it should be possible to trace that sale until it appears on the profit and loss statement as part of the total sales Or if the profit and loss statement shows rent expense of $1 500 it should be possible to trace back from the statement, through the work sheet ledger, journal, and business papers to rent transactions totaling $1 500

The record of transactions may be considered as a stream of information that flows from the business papers to the periodic accounting statements This flow must be uninterrupted and rapid so that the accounting statements will be complete and timely Any procedure or any mechanism that will insure the continuous and speedy flow of this information merits the attention of the bookkeeper or the accountant

INTERNAL CHECK OF OPERATIONS When accounting procedures and systems are designed for a business they should be so constructed that no section of the system is under the sole control of one person The work of each employee should be related to the duties of another When such a system is used the accounting is said to possess ' internal check ' and control The purpose of such a control is to prevent error and fraud

Of the many accounting functions of a business, the most elaborate controls are generally provided for the handling of cash This chapter has described methods that secure internal control of cash by depositing all receipts and by making payments only by check except for properly vouchered petty cash items Control of cash is further achieved by separating the duties of those employees charged with receipts and payments of cash from the duties of those who keep the journal and ledger records and who prepare statements of account for customers

If cash receipts are received in the mail it is necessary to have separate employees open the mail and make a list of all receipts in duplicate One copy accompanies the receipts to the cashier, the other serves as the underlying document for the accounting entry

Similar controls are usually provided for customers' accounts, inventories, plant assets, and other groups of accounts

QUESTIONS

1. Does the use of business papers, journals, and ledgers mean that recording is thereby tripled in volume? Explain your answer.

2. (a) Is there any principle that can be followed in determining how often summaries of transactions should be made? (b) Must summaries be made only at the end of the accounting period?

3. What is meant by the expression "take the books out of bookkeeping"?

4. "The trial balance is the only reliable proof of posting." Do you agree with this statement?

5. The term *double record of cash* refers to the record in the cashbook and the record in the ledger. Is this statement correct?

6. It is necessary for Warte and White to pay out a large number of small amounts varying from 25 cents to $5. Those receiving the payments prefer cash rather than checks. An accountant recommends that the petty cash system be used. (a) Describe how such a record and fund should be operated. (b) How is this record correlated with a "double record of cash"? (c) What advantages do you see in its use?

7. Give journal entries for the following: (a) A petty cash fund of $50 is established. (b) The fund is replenished for expenditures of $47.84, chargeable $24.32 to Miscellaneous Selling Expense and $23.52 to Miscellaneous General Expense. (c) The fund is increased to $100.

8. In designing a combined cash journal for a doctor, what columns would you omit that are shown on pages 266 and 267? What columns would you add?

9. If an amount was entered in the wrong column in a combined cash journal, would it throw the trial balance out of balance? Explain.

10. Assume that the general ledger accounts given on page 177 are to be numbered. Number the accounts according to a logical system that will provide for the addition of new accounts.

11. What are the advantages of the use of bookkeeping machines?

12. (a) Under what conditions would you recommend that a business use notes receivable and notes payable registers? (b) What types of businesses would be more likely to use a notes receivable register than a notes payable register? (c) What types of businesses would be more likely to use a notes payable register than a notes receivable register? (d) What information should each of these registers provide?

PROBLEMS

1. The following transactions involving petty cash were completed by the Princess Garment Co during the month of March

(a) Mar 1 Drew check No 309 for $60 to establish a petty cash fund.

(b) The following amounts were paid from petty cash on the dates indicated:

Mar 3 To Mayfair Dry Goods Co for findings, $3 75 (Purchases).
5 Water bill, $2 (Misc General Expense)
6 To Speedy Service Co to deliver garments, $6 25 (Delivery Expense)
9 Postage, $10 (Office Supplies)
13 To Mayfair Dry Goods Co for findings, $5 25
24 Store supplies, $15
27 To Speedy Service Co, $4 75

(c) Mar 31 Drew check No 394 to replenish the petty cash fund

Instructions (1) Record the check to establish the petty cash fund in a check register Enter the amount of the fund in a petty cash book having the same form and columns as the book illustrated on page 259 of the text, and then record the payments in this book

(2) Total and rule the columns of the petty cash book and bring down the balance Record the replenishing check in the check register, the general journal, and the petty cash book

2. The store equipment of the Laine Mercantile Co was acquired as follows

Date Purchased	Description	Cost	Estimated Life
Jan 2, 1948	Carpeting	$ 360	3 yrs
Oct 1, 1948	Counters	2,400	5 yrs
Apr 1, 1949	Cash register	600	10 yrs

Instructions (1) Prepare a fixed assets register for store equipment for the year 1950 Use the same form and columns as illustrated on pages 264 and 265

(2) Prepare a journal entry for the depreciation for January, 1950

3. Harvey Benson decides to maintain a notes receivable register On July 1 of the current year he has the following notes receivable on hand:

Our No	By Whom Payable	Where Payable	Date of Paper	Time	Face	Int. Rate
41	Henry Potter	Our office	Apr 27	90 days	$400 00	—
42	C. M. Barnes	First National Bank, Toledo	May 8	60 days	$198 50	6%
43	A. J. Clifford	Merchants Bank, City	May 14	90 days	$200 00	4%
44	L. D. Burke	Our office	June 2	30 days	$450 00	6%
45	James Finley	Ajax Bank, Ajax	June 22	60 days	$368 40	5%

During the month of July, Mr Benson completed the following transactions with notes receivable:

July 2. Received a check from L. D. Burke in payment of his note and interest due today.

5. Sent C. M. Barnes's note to the First National Bank, Toledo, for collection. (Make a memorandum notation only in the Remarks column of the notes receivable register.)

7. Received a check from the First National Bank, Toledo, for the face of C. M. Barnes's note plus interest, minus a collection charge of 75 cents. (Record the collection charge as a debit to Miscellaneous General Expense.)

12. Received a 60-day, 6% note for $300 from L. P. Taylor in settlement of his account. The note is dated July 11 and is payable at our office.

19. Discounted A. J. Clifford's note at 6% at our bank and received credit for the proceeds.

29. Henry Potter did not pay his note when it was due. Charged the dishonored note to the maker's account.

Instructions: (1) Record in a notes receivable register like the one in this chapter, under date of July 1 of the current year, the notes receivable on hand on that date.

(2) Record the transactions with notes receivable in a combined cash journal like the one in this chapter and make the necessary entries in the notes receivable register.

4. John Jarvis began business on April 1, 1950, as the Jarvis Products Co. The following transactions were completed during the month of April. Terms of sales, 2/10, n/30; terms of purchases, 1/10, n/30. Begin checks with No. 1.

Apr. 1. Invested cash, $8,000.
1. Paid rent for the month, $350 (Operating Expense column).
2. Issued check to establish petty cash fund, $50.
2. Sold merchandise on account to M. Edwards, $500.
3. Purchased merchandise on account from W & K Co., $1,700.
4. Paid advertising, $50 (Operating Expense column).
6. Received cash from M. Edwards for invoice of April 2.
8. Sold merchandise on account to Harold Morrison, $350.
10. Paid freight in, $75.
11. Paid invoice of April 3.
13. Sold merchandise on account to Thomas Reed, $275.
14. Check No. 6 was spoiled and voided.
15. Purchased merchandise on account from W & K Co., $1,300.
19. Received note from Harold Morrison for $350 covering invoice of April 8. (No discount allowed.)
23. Purchased merchandise on account from Peerless Products, $860.
24. Gave W & K Co. a note for $1,300 covering April 15 purchase. (No discount allowed.)
27. Reimbursed petty cash: Freight In, $25; Operating Expense, $15.
30. Paid salaries for the month, $400 (Operating Expense column).
30. Cash sales for month, $750.

Instructions: (1) Record the transactions in a combined cash journal. Columns required are: Cash Dr.; Cash Cr.; Check No.; Date; Description; Post. Ref.; General Ledger Dr.; General Ledger Cr.; Accounts Receivable

Dr Accounts Receivable Cr Accounts Payable Dr Accounts Payable Cr Sales Discount Dr Purchases Discount Cr Sales Cr Purchases Dr Operating Expenses Dr

(2) Open and post to ledger accounts as follows

General Ledger Accounts Cash Petty Cash Notes Receivable Accounts Receivable Notes Payable Accounts Payable John Jarvis Capital Sales Purchases Freight In Operating Expenses Purchases Discount, Sales Discount

Accounts Receivable Ledger M Edwards Harold Morrison Thomas Reed

Accounts Payable Ledger Peerless Products W & K Co Use balance-column ledger accounts in the subsidiary ledgers

(3) Prepare a trial balance

5 Charles Elliott s accounting records include a check register a petty cash book and an insurance policy register similar to those illustrated in this chapter and a two-column general journal

The following transactions were among those completed in October, 19.0

CHAPTER XVI

THE VOUCHER SYSTEM

ACCOUNTING SYSTEMS The accounting papers, journals, ledgers, and reports, and the routines and procedures employed in using these records, constitute the accounting system of a business. When accounting principles and practices are applied to any given enterprise or to any set of conditions in a going business, the result is an accounting system. For any such system there is a selection of the useful elements from the entire field of accounting practice and the arrangement of these elements into an organized whole.

One of the most complete accounting systems is that concerned with the payment of obligations. This system not only adjusts the accounting records to a practice of account payment, but also affects the accounting from the first record of the transaction. The *voucher system* consists of an organized group of accounting practices that begin with the first recording of purchases of merchandise, services, and other assets and end with the payment of obligations to suppliers. This chapter will be devoted to a complete discussion of the voucher system. This system should be considered as concrete evidence of a more general principle of organizing accounting practices.

THE VOUCHER SYSTEM In the operation of either a mercantile or a manufacturing business, it is necessary to purchase the following:

1. *Goods or Materials.* In a mercantile business goods are purchased and resold without modification. In a manufacturing business materials are purchased and used in the production of the commodity or the service that the business sells.

2. *Assets for Use in the Business.* Both mercantile and manufacturing businesses purchase assets such as land, buildings, machinery, equipment, and supplies with which to carry on their operations.

3. *Services.* In order to operate, all businesses must purchase services such as labor, heat, light, and power. Such services, which are ordinarily termed expenses, may be used in the production of the commodity or the service that the business sells, or they may be used in selling the product after it has been purchased or produced.

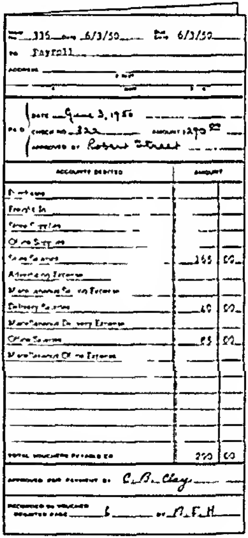
In a large business, expenditures for these purposes amount to large sums and cannot be closely supervised by the chief executive.

It is therefore necessary to delegate the responsibility for incurring obligations and making expenditures and yet to retain a proper control.

THE VOUCHER One method of obtaining control over expenditures is to require for each expenditure a written authorization. This authorization is usually in the form of a *voucher*. The voucher is prepared from the invoice or from other data that serve as evidence of the expenditure to be made. The outside of the voucher provides space for (1) a brief summary of the invoice data, (2) the details of the actual payment, (3) a list of the accounts to be charged, (4) the signature of the one who approves the payment, and (5) the signature of the one who enters the voucher in the voucher register. The inside of the voucher provides space for the details of the transaction and for the signature of the one who approves the voucher. When the business paper from which a voucher is prepared contains all of the necessary details about the transaction, the business paper is attached to the inside of the voucher and no further items need be entered on the inside of the voucher The outside and the inside of a voucher are illustrated on pages 274 and 275

When the voucher system is in use, every invoice or bill received must be *vouchered*. This procedure necessitates that the invoice or bill be approved as to:

1. Quantities, prices, grades, sizes, and quality by the purchasing agent.
2. Actual receipt by the receiving clerk.
3. Mathematical accuracy of extensions by the checking clerk in the accounting department.



Outside of a Voucher

4. Terms of payment by the purchasing agent.
5. Distribution (accounts to be charged) by the bookkeeper or the auditor.

These approvals are usually indicated on the invoice before the voucher is prepared. In order to prevent mistakes, the bookkeeper or the auditor designates the distribution on the invoice before it is copied on the voucher. If the accounts in the ledger are numbered, the bookkeeper indicates the charges by means of these numbers. After the voucher has been prepared, the invoice is fastened on the inside and the voucher is folded so that the distribution, as shown on the outside, will be visible. The voucher is then recorded in the appropriate record, which is explained in later paragraphs, and is filed in the unpaid vouchers file.

Voucher

SUPERIOR TRADING COMPANY

No. 336 Date June 3 1950 Terms ______ Due June 3 1950

To Payroll

Address ______

City ______ Zone ______ State ______

For the following (Attach all invoices or other papers permanently to voucher)

DATE	VOUCHER DETAILS	AMOUNT
June 3	Payroll for period ended 6/3/50	290.00

Approved by C. B. Clay
CONTROLLER

Inside of a Voucher

FILING VOUCHERS Unpaid vouchers are most frequently filed under the date of payment, for this method automatically brings to the attention of the disbursing officer the vouchers that are to be paid on each day and provides a convenient means by which those who are interested can determine the amount that must be paid at any time. This method of filing does not provide a very direct means of referring to an unpaid voucher. An unpaid voucher can, however, be located with reasonable effort if the due date is determined first from the book of original entry.

Occasionally unpaid vouchers are filed alphabetically under the name of the vendor While this makes the finding of the vendors' accounts easier, it usually involves a supplementary record, known as a *tickler*, that shows the accounts to be paid each day. The tickler record shows the vouchers to be paid day by day.

When the due date arrives, the voucher is taken from the file and a check is issued in payment If this check shows the invoice or invoices for which it is issued in payment, it is known as a *voucher check*. After payment, the voucher is filed alphabetically in the paid vouchers file.

THE VOUCHER REGISTER It has been explained in the preceding paragraphs that, when the voucher system of authorizing payments is used, a voucher is prepared for each expenditure, whether the expenditure is for goods or materials, assets for use in the business, or services. In fact, under the voucher system a check is never issued except in payment of a properly authorized voucher.

Each voucher is recorded in a book known as a *voucher register*. The form of the voucher register may vary widely, depending largely on the size of the business and the number of accounts maintained with purchases and expenses. The illustration on pages 276 and 277 shows a typical form.

The voucher register is usually ruled to provide columns for the date of entry, the voucher number, the name of the creditor, the explanation, the terms, the date of payment, and the number of the check issued in payment. In addition, it contains one amount column for credits to the vouchers payable account and as many columns for debits as are necessary to show the distribution and classification of all purchases and expenses. A space to record charges to accounts for which there are no special columns is provided at the extreme right.

VOUCHER REGISTER PAGE 6

Store Supplies Dr.	Advertising Expense Dr.	Misc. Selling Expense Dr.	Delivery Salaries Dr.	Misc. Delivery Expense Dr.	Office Salaries Dr.	Office Supplies Dr.	Misc. Office Expense Dr.	General Ledger Dr: Account	P. R.	Amount
								Rent Expense	33	200 00
								Petty Cash	2	50 00
25 10						16 40				
	55 60									
			40 00		85 00					
								Off. Furn. & Fix.	9	60 00
								Interest Exp.	41	5 00
								Notes Payable	14	500 00
		5 50					21 10			
5 50		7 20		3 90		5 10	8 10			
105 12	260 10	30 26	185 00	35 18	340 00	46 15	39 92			1,846 31
(11)	(24)	(27)	(28)	(31)	(32)	(12)	(37)			(✓)

Voucher Register, Right Page

Every amount entered in the voucher register appears as a credit to the vouchers payable account and as a debit to the account or accounts charged for the commodities or the services represented by the invoice or the bill.

At the time the voucher is prepared and approved, it is entered in numerical order in the voucher register. When it is paid, the date of payment and the number of the check issued in payment are entered in the appropriate columns of the register. The total of the unpaid vouchers as shown by the voucher register must at all times agree with the total of the vouchers in the unpaid vouchers file.

The entries in the voucher register are not posted until the end of the month. At that time all the columns are totaled, and the total of each column is posted to the account stated at the head of the column. The total of the Vouchers Payable Cr. column is posted to the credit of the vouchers payable account, and the totals of all the other amount columns, except the General Ledger Dr. Amount column, are posted to the debit of the respective accounts. The items in the General Ledger Dr. Amount column are posted individually to the debit of the accounts stated in the Account column.

The voucher register should be proved before it is posted by comparing the sum of the totals of all the debit columns with the total of the Vouchers Payable Cr. column. Unless these totals agree, an error has been made either in entering amounts in the columns or in obtaining the various totals. This error must be corrected before the posting is begun.

THE CHECK REGISTER Postings from the voucher register result in debits to various asset, trading, and expense accounts and credits to the liability account Vouchers Payable. The vouchers payable account serves the same purpose as the accounts payable account, since it shows the total amount due to creditors.

When a voucher is paid, an entry debiting Vouchers Payable and crediting the bank account is made in the check register. If the terms of the invoice provide for discount, the amount of the voucher is entered in the Vouchers Payable Dr. column; the discount, in the Purchases Discount Cr. column; and the amount of the check, in the column providing for credits to the bank account. If a form similar to that illustrated on page 279 is used, the amount of the check issued in payment of each voucher is entered in the column provided for the bank on which the check is drawn. The date of payment and the number of the check must also be entered in the Paid columns of the voucher register.

For each item for which payment is to be made, a voucher must be prepared. When merchandise or supplies are purchased on credit or for cash or when any bill for an expense is received, a voucher is first prepared in the usual manner. This voucher is then entered in the voucher register and the amount is credited to Vouchers Payable. At the time payment is made, an entry is recorded in the check register and the amount of the voucher is debited to Vouchers Payable.

CHECK REGISTER

DATE		NAME OF PAYEE	CHECK NO	VCHR NO	VOUCHERS PAYABLE DR.	PURCHASES DISCOUNT CR.	MERCHANTS NATIONAL BANK CR.
1950							
June	1	S. S. Stem	319	332	200 00		200 00
	1	Petty Cash	320	333	50 00		50 00
	2	Sands Supply Co.	321	334	41 50		41 50
	3	Payroll	322	336	290 00		290 00
	7	F. C. Fields	323	331	145 60	2 91	142 69
	29	P. F. Mills	369	371	142 12	1 42	140 70
	29	N. Cowan	370	393	505 00		505 00
	30	R. A. Cook	371	391	441 10	8 82	432 28
	30	Petty Cash	372	395	41 80		41 80
					8,919 04	*101 16*	*8,817 88*
					8,919 04	101 16	8,817 88
					(15)	(38)	(1)

Check Register or Cash Payments Journal

The check register is not posted until the end of the month. At that time the totals of the columns are posted to the accounts indicated in the columnar headings. For example, the total of the first amount column in the check register shown above is posted to the debit of the vouchers payable account; the totals of the other columns are posted to the credit of the purchases discount and bank accounts. The individual items in a check register are not posted.

RELATION OF THE VOUCHER SYSTEM TO ACCOUNTING PROCEDURES The use of the voucher system as described in the previous pages makes unnecessary the use of the accounts payable ledger. The vouchers in the unpaid vouchers file serve as a record of the amounts owed. Emphasis is placed on when a bill should be paid rather than to whom it is to be paid.

The voucher system modifies the accounting procedures described in the preceding chapter under the heading "Double Record of Cash." Under the voucher system, each payment not only must be represented

is entered in the Vouchers Payable Cr. column, and the amount of the asset or the expense on which the return or the allowance was made is adjusted by indicating the deduction in the corresponding debit amount column. When the columns are totaled, the figures in red should be added separately and written immediately above the columnar totals of the figures in black. The totals indicated in black ink are posted in the usual manner. The total in red ink in the Vouchers Payable Cr. column is posted as a debit to the vouchers payable account, and the corresponding red totals in the debit amount columns are posted as credits to the appropriate accounts. In practice, accountants often show a "red ink" entry in black, encircling the amount to show that it represents a deduction. The method of recording credit received for a return or an allowance is shown in the voucher register illustration (Voucher No. 391), page 276. At the end of the month, after the columns were totaled, Vouchers Payable was debited for $25 and Purchases Returns and Allowances was credited for the same amount. The credit memorandum from the creditor or a note showing the amount of credit received should be filed with the adjusted voucher.

When credit is received for a return or an allowance in a later month, after the voucher register has been totaled and posted, the method just outlined cannot be followed. In this case a new voucher for the adjusted amount payable must be prepared, and the original voucher should be marked "Canceled" with a reference to the new voucher. The amount of the original voucher has, however, already been posted in the columnar total for the previous month. An adjusting entry must therefore be made in the general journal.

Assume, for example, that in May merchandise was purchased for $180 from C. C. Shaw. An entry debiting Purchases and crediting Vouchers Payable for $180 was made in the voucher register at that time. In June, however, a portion of the order was returned and a credit memorandum for $30 was received. The following entry was then made in the general journal:

June 28	Vouchers Payable........................	180	
	Purchases Returns and Allowances.........		30
	Purchases..............................		150
	To record the return of merchandise purchased in May and to cancel Voucher No. 323.		

A reference to this journal entry was placed in the Paid columns for the old voucher. A new voucher for $150 was then prepared and

recorded in the voucher register This new voucher is Voucher No 392 in the register on page 276 The net effect of the two entries on June 28 is a debit to Vouchers Payable of $30 and a credit to Purchases Returns and Allowances of $30

Notes Payable If a voucher is paid by the issuance of a note or by the acceptance of a draft or a trade acceptance an entry debiting Vouchers Payable and crediting Notes Payable should be made in the general journal or the notes payable journal An explanation indicating the method of payment is written on the voucher and a similar explanation with reference to the page of the journal in which the entry was made is entered in the Paid columns of the voucher register The voucher is then filed in the paid vouchers file

At the time the note or the acceptance is to be paid a new voucher will be issued The entry in the voucher register will consist of a credit to Vouchers Payable and a debit to Notes Payable The payment of this voucher will then be recorded in the usual manner The entries required in the payment of a note are shown in the illustrations of the voucher register and the check register (Voucher No 393) on pages 276 and 279

Partial Payments The plan of the voucher register assumes that each voucher is a unit and will be paid as a unit No provision is made in the register for partial payments If then a business customarily makes partial payments on its invoices it should not plan to use a voucher register but should use some other method that is more adaptable to the recording of partial payments

If at the time an invoice is received the management knows that it will be paid in installments several vouchers may be prepared one for each installment If the decision to pay a voucher in installments is made after the voucher is recorded the method used varies according to whether the new entry is to be made in the same month in which the voucher was recorded or in a later month If the change is to be made in the same month in which the voucher was recorded the voucher and the entry in the voucher register may be canceled and two or more new vouchers may be issued If the change is to be made after the amount of the voucher has been posted an entry may be made in the general journal reversing the first entry in the voucher register Two or more new vouchers may then be issued and recorded in the register

VOUCHER SYSTEM CORRECTIONS The careful checking of the records used in the voucher system will not eliminate errors entirely, but it should reduce them to a minimum. If an error is

discovered in the same month in which a voucher was recorded, the voucher and the entry in the register may be canceled and a new voucher may be issued. If the error is discovered after the voucher register has been posted, the correction may be made by a journal entry reversing the entry to be corrected and the issuing of a new voucher for the correct amount.

THE VOUCHER REGISTER AS A BOOK OF ORIGINAL ENTRY AND SUBSIDIARY LEDGER The use of the voucher register proves very convenient. Liabilities are recorded as soon as they are incurred, an accounts payable ledger is not needed, and a great saving of labor in posting is effected through the use of the columns in the register.

Each line of the voucher register may be considered as a separate account with a voucher. This account is credited when the voucher is recorded; it is debited when the voucher is indicated as paid. At any time, then, the voucher register will give the detail regarding the balance of the vouchers payable account. In this respect the voucher register is comparable to the accounts payable ledger, and it may be considered as a subsidiary ledger. The entry of the date of payment in the voucher register from the paid voucher is in the nature of a posting to a subsidiary ledger.

The voucher itself is a business paper co-ordinating the activities of a number of specialized employees in a business organization. The vouchers, which are numbered serially, constitute a journal record of the obligations incurred and of the accounts to be charged. When the vouchers are filed in an unpaid vouchers file, they provide a subsidiary ledger showing the amounts due at various times. When vouchers are placed in the file, they represent credits; when they are removed from the file, they represent debits. Hence, vouchers themselves serve as business papers, a journal record, and a ledger record.

The voucher register is a record that facilitates the accumulation of summaries to be posted to the general ledger. As indicated in a preceding paragraph, the voucher register may be considered as a subsidiary ledger of authorized obligations, supporting the controlling account Vouchers Payable.

THE VOUCHER SYSTEM AND FINANCIAL MANAGEMENT The voucher system illustrates the adaptability of accounting procedure to new conditions in business practice. As a well-defined system it proves of great use to financial management. Its adoption has resulted in the following advantages:

1 *Information regarding invoices to be paid is furnished promptly* When the prevailing practice of a business provides for the payment of creditors from funds received through the collection of accounts receivable the purchases journal and the accounts payable ledger provide the needed information When emphasis is placed on meeting the terms of payment on all invoices and bills the voucher system serves the needs of the financial officer more effectively than do the purchases journal and the accounts payable ledger The disbursing officer is more interested in knowing when payments should be made than in knowing to whom the amounts are payable The voucher system provides a flexible record in furnishing prompt information regarding invoices and bills authorized for payment

2 *Misunderstandings are avoided by having payments cover specific invoices* In the interest of both the debtor and the creditor the voucher system provides that each check issued shall cover a specific invoice or a specific group of invoices This practice provides for the easy identification of amounts charged and amounts paid so that there can be agreement regarding the balance owed The payment of round amounts to apply on account is unsatisfactory from the point of view of both the creditor and the debtor Discrimination among creditors by debtors is equally unsatisfactory from both points of view The voucher system represents a modification of accounting practice to fit improved financial practices

3 *The practice of taking cash discounts is facilitated* The voucher system is particularly useful in providing the necessary information for those concerns that follow the practice of taking cash discounts As a matter of financial policy it is always less costly to borrow funds at a local bank in order to take advantage of cash discounts than to permit such discounts to be neglected Under the voucher system each invoice can be approved promptly and filed in the unpaid vouchers file under the last date when the discount can be taken The unpaid vouchers file provides an orderly list of all future obligations arranged according to the dates of payment By taking the discounts the business gets the maximum use of its cash balance and at the same time provides a maximum return from available cash discounts

4 *Authorization of future disbursements is given at the proper time* The voucher system provides for the approval of expense items at the time when such approval can be given most intelligently The adequacy of a service purchased should be determined at the time the service is rendered rather than at a later date when payment is to be

made. If the service is satisfactory, future payment should be authorized at once. Hence, no further investigation is necessary when the check is to be drawn.

Such advantages are, however, accompanied by a lack of flexibility in the use of the register. Whenever records with special columns are used, the procedure is necessarily rigid. It has already been shown that a special journal does not allow so complete an explanation as the general journal. In the use of the voucher register the procedure is even more formal. This fact has been shown in the difficulties encountered in making corrections and in handling purchases returns and allowances, notes payable, and partial payments.

QUESTIONS

1. (a) From the point of view of the chief disbursing officer, which is usually of greater significance: the time when an amount payable will be due, or the person or business to which payment is to be made? (b) Which of these two factors does the voucher system stress?

2. (a) Which is the more flexible record: the general journal or the voucher register? (b) Which is more closely fitted to a recognized business practice? (c) Are your answers consistent? Explain.

3. The special journals to be used in any given business are determined by the frequency of occurrence of similar transactions. Does the same principle determine the special columns to be used in the voucher register? Explain.

4. (a) Is the voucher register a book of original entry? (b) a summarizing device? (c) a ledger? Explain.

5. Would the number of unrecorded transactions tend to be more or less under the voucher system? Explain your answer.

6. (a) Which is the better time to authorize a cash disbursement: at the time the disbursement is to be made or at the time the goods or the services are received? (b) When is such authorization made under the voucher system?

7. "The voucher system is useful in assuring the taking of all purchases discounts." Is this statement true?

8. Does the introduction of the voucher system prevent the use of a petty cash fund? Explain.

9. (a) What characteristics does the voucher register have that the sales and the cash receipts journals do not have? (b) Is this true of the check register?

10. What advantages of the voucher system would you explain to the treasurer of a corporation who is considering the use of this system?

PROBLEMS

1 George Gruskin, whose accounts payable on August 31 were as follows, installed the voucher system

Aug	28	Herbert Thomas	Merchandise	2/10, n/30	$300
	30	Charles Bidwell	Repairs	n 30	250
	31	Dumont Co	Merchandise	2/10, n/30	200
					$750

During the first week in September he completed the following transactions

Sept 3 Purchased merchandise from Herbert Thomas, $500, terms 2/10, n 30

5 Received an invoice from Charles Bidwell for repairs, $50, terms n 30

6 Purchased machinery from the Dumont Co, $1,000, terms 2/10 n 30

6 Issued check No 314 to Herbert Thomas, $294

7 Issued Check No 315 to Charles Bidwell, $250

Instructions (1) Use a voucher register with the following amount column headings Vouchers Payable Cr, Purchases Dr, Repairs Dr, and General Ledger Dr Use a check register with the following amount column headings Vouchers Payable Dr, Purchases Discount Cr, and Second National Bank Cr

(2) Make in general journal form an entry as of September 1 transferring the balance of the accounts payable account to Vouchers Payable

(3) Under the date of the original purchase, enter the unpaid vouchers in the voucher register, then rule double lines across all the amount columns of the voucher register so that the amounts just recorded will not be included in the columnar totals posted at the end of September

(4) Enter the transactions for September 3-7 inclusive

2. The S & M Druggists use a voucher system All bills are paid upon receipt of invoice or within the discount period Vouchers issued during May and June for which the discount period had not expired on June 30 were

Voucher No	Company	For	Date of Invoice	Terms	Amount
264	Rogers Company	Merchandise	May 6	n/60	$ 4,000
301	May & Tyler	Merchandise	June 24	2/20, n/30	6,500
					$10,500

The following transactions were completed in July. The vouchers used were numbered consecutively from No 310

July 1 Issued Check No 753 for $550 to Reeder Realty Co in payment of July rent $500, utilities $50 (Charge utilities to Miscellaneous Office Expense)

July 2. Issued Check No. 754 for $200 to establish a petty cash fund.

3. Received an invoice for merchandise from the Oregon Products Company for $8,100, terms 1/30, n/60.

4. Issued Check No. 755 to the Ohio Oil Company for gas, oil, and repairs. The tickets attached to the invoice indicate that delivery trucks used $175 and salesmen's cars $75.

6. Issued Check No. 756 for $78 to the L & Y Railroad Company in payment of freight on merchandise purchases.

7. Gave Rogers Company a 15-day, 6% note for invoice due July 5.

9. Received a credit memorandum for $500 from May & Tyler for merchandise returned to them and issued Check No. 757 paying new voucher.

13. Received an invoice from the Western Company for $2,925, terms 2/30, n/60. The invoice covered: merchandise, $2,500; store supplies, $100; office supplies, $150; and advertising circulars, $175.

15. Issued Check No. 758 for $250 to National, Inc. as the down payment on a new cash register. If the machine is satisfactory, the balance of $1,000 will be paid in 30 days. (Store Equipment.)

19. Received an invoice for merchandise from Abbott Laboratory for $425, terms 2/15, n/30.

22. Issued Check No. 759 to Rogers Company for note and interest (see July 7).

24. Received a credit memorandum for $100 from Oregon Products Company for merchandise returned to them.

31. Issued Check No. 760 in payment of the monthly payroll as follows: Sales Salaries, $1,000; Delivery Salaries, $400; Office Salaries, $900.

31. Issued Check No. 761 to reimburse the petty cash fund. The charges were distributed as follows: Store Supplies, $35; Miscellaneous Selling Expense, $40; Miscellaneous Delivery Expense, $15; Office Supplies, $25; Miscellaneous Office Expense, $8.

31. A credit memorandum was received from Abbott Laboratory for $425. The invoice had been issued in error.

Instructions: (1) Prepare a voucher register and a check register like the ones illustrated on pages 276 and 279 of the text. Under date of the original purchase, enter the unpaid vouchers at June 30 in the voucher register; then rule double lines across all the amount columns of the voucher register so that the amounts just recorded will not be included in the columnar totals posted at the end of July. Record the July transactions in the voucher register and the check register. Record journal entries where required.

(2) Total and rule the voucher register and the check register.

(3) Post to the vouchers payable control account the June 30 balance ($10,500) and the totals of the vouchers payable columns in the voucher register and the check register. Post to the purchases returns account the total of the returns shown in the vouchers payable column of the voucher register. Post journal entries to the voucher payable control account and to the purchases returns account. Prove the July 31 balance of the vouchers payable account by preparing a schedule of unpaid vouchers as shown by the voucher register.

CHAPTER XVII

ACCOUNTING FOR PAYROLLS

THE NEED FOR PAYROLL RECORDS Efficient business operation requires adequate records covering the compensation of employees. The workers must be paid at regular intervals the exact amounts to which they become entitled. Federal laws require most employers to pay taxes based upon wages and salaries and to act as agents in collecting other taxes levied upon the earnings of their employees. In all states many employers are subject to state payroll taxes. In a few states the employers must also be the agents in collecting taxes levied upon the earnings of their employees. All of these federal and state taxes must be paid and detailed reports on prescribed forms must be submitted in accordance with the several laws.

Not infrequently employers obligate themselves to make payroll deductions for their employees for such things as union dues, insurance plans, and bond purchases. The calculation of premiums for Workmen's Compensation Insurance, which is carried by most employers, necessitates the use of payroll information. The obligations imposed by law and the requirements of good business management demand accurate and complete payroll records.

FORMS OF COMPENSATION The term *wages* is usually used when remuneration is paid on an hourly, weekly, or piece-work basis. If the compensation is on a monthly or a yearly basis, the term *salary* is commonly used. The words may be used interchangeably. Other forms of remuneration include commissions, profit sharing, and bonuses. Money is not the only form of compensation; employers sometimes provide such things as meals and lodging.

WHO IS AN *EMPLOYEE* Business organizations may secure the services of various individuals without the latter being in the capacity of employees. Public accountants may be engaged to audit the accounting records, lawyers to prepare or review contracts, or plumbers to repair the water pipes. These people are independent contractors, not employees. They choose their own means of accomplishing the tasks they are engaged to perform. The payment for their services is not a part of the payroll. To qualify as an employee, a person must be under the direction of his employer both as to the work or result to be accomplished and the means of its accomplishment.

GROSS EARNINGS The gross earnings of each employee for each pay period are usually calculated by multiplying the time worked during the period by the agreed rate per hour, week, month, or other unit of time. In some cases, gross earnings are the product of the units of work completed times the rate per unit or piece. The gross earnings of salespeople are sometimes calculated by multiplying their sales for the period by an agreed percentage.

Timekeeping. When compensation is based upon time, a record of the time worked by each employee is needed. Maintaining such records is called *timekeeping*. The records that are compiled may be very simple or quite elaborate, depending upon the nature of the business and the number of employees. Sometimes such records are merely notations in a small memorandum book. In other cases the employees may be required to "sign in" and "sign out" each day, noting the times of their arrivals and departures. Many businesses use mechanical or electric time clocks to compile this information. While it may not be needed in order to calculate gross earnings, other considerations sometimes make it necessary to keep a record of exactly what work the employees perform while on duty.

Wage Rates, Overtime. Wages and salaries must be paid at the rate agreed upon in each case. In most cases the rates must conform to the requirements of the Federal Fair Labor Standards Act. This Act, commonly known as the Wages and Hours Law, requires employers who are covered by the statute to pay 150 per cent (time and one half) of the regular rate for all hours worked in excess of 40 per week. Persons holding executive, administrative, and certain supervisory positions are not covered by this provision of the law.

In many industries the practice of paying premium rates for overtime hours has been considerably extended. Certain overtime hours may be paid at twice the base rate. Work on Sundays and holidays may be paid overtime rates regardless of the total number of hours worked during the week. It is a common practice for companies that work night shifts to pay premium rates to those who work during these generally less desirable hours.

Illustration. To illustrate the calculation of the gross earnings of an employee, assume these facts: Charles Adams is employed by a company that pays him at the rate of $1 an hour for the first 40 hours each week, and $1.50 an hour for all hours worked in excess of 40 a week. His time card shows that he worked 8 hours each, Monday through Thursday, 9 hours on Friday, and 5 hours on Saturday. His gross earnings would be calculated as follows:

Day	Total Hours Worked	Straight Time Hours	Overtime Hours
Monday	8	8	
Tuesday	8	8	
Wednesday	8	8	
Thursday	8	8	
Friday	9	8	1
Saturday	5		5
	46	40	6

Regular hours	40×$1.00 = $40.00	or	Regular pay	46×$1.00 = $46.00
Overtime hours	6×$1.50 = $ 9.00		Overtime premium	6×$ .50 = $ 3.00
Total gross earnings	= $49.00		Total gross earnings	= $49.00

DEDUCTIONS FROM GROSS EARNINGS In most instances, the gross earnings of a worker are not the same as his take-home pay. The difference is due primarily to the taxes that the employer is required to withhold. In addition to these, there may be various deductions authorized by the employee.

Social Security Taxes The requirements of the Federal Insurance Contributions Act compel most employers to withhold a percentage of the gross earnings of each of their employees. This is the employees' share of the old-age and survivors' insurance tax, often termed the old-age benefits tax. This tax, a part of the federal program to provide old-age insurance, must be withheld by every employer who is covered by the law. Certain types of employment are exempted. The rate of the tax and the amount of the salary on which it is based may be changed at any time by the Congress. At the present time the rate is 1 per cent of the first $3,000 paid each employee in each calendar year. Although the amount of the tax may be changed at any time, such a change will not affect the accounting principles or the method of recording the transactions.

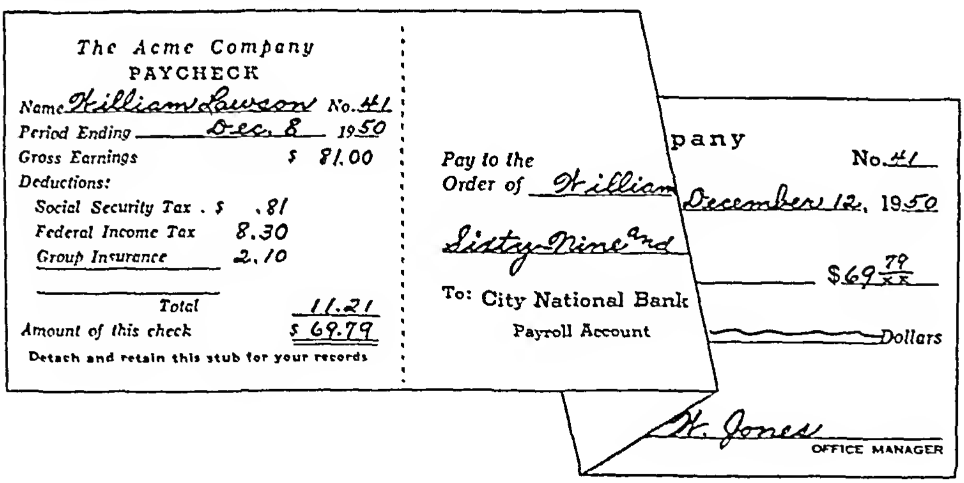
The taxes the employer deducts must be sent to the government in the month following each calendar quarter, together with a report showing the name and the social security number of each employee and the gross amount paid to each employee. Every employee covered by the law must register and secure a social security number and card.

A few states require employers to withhold from the employees' pay contributions to their state unemployment insurance funds and periodically to remit these contributions to the state government. These taxes are in addition to the unemployment insurance contributions required of employers. The latter will be considered at another point in the chapter.

Federal Income Tax Withholding. Employers are required to withhold a portion of the gross earnings of their employees for federal income tax purposes. This applies to virtually all grades and types of employees. The amount to be withheld depends upon gross earnings and the number of exemptions to which the employee is entitled. Exemptions are allowed for himself, certain dependents, and, in some cases, because of old age and blindness. Workers inform their employer of their status in this respect by submitting exemption certificates.

The amount of the tax to be withheld from the gross earnings of each employee is calculated by taking into account the amount of his earnings, the length of the pay period, the number of exemptions claimed, and the tax rates currently in force. Many employers find it expedient to consult withholding tables prepared by the government. From a table for the appropriate pay period (daily, weekly, biweekly, semi-monthly, monthly, etc.) the amount of tax to be withheld can be found for any amount of earnings and any number of exemptions.

It is customary for the employer to furnish a statement of withholdings to the employee with each paycheck or pay envelope. Paychecks with detachable stubs are widely used. The pay period, the gross earnings, and the various deductions are shown. The employee removes the stub before cashing the check. An illustration of this form of paycheck is shown below:



Payroll Check

The federal income taxes, which the employer has actually withheld from wages paid, must be paid to the Collector of Internal Revenue within a month after the close of each calendar quarter. The payment must be accompanied by a statement on a prescribed form of the

social security tax. Assume that he is employed in a state that does not require employee contributions to its unemployment insurance program. Assume further that he claims two exemptions for tax purposes. Reference to the income tax withholding table for a weekly payroll period discloses that earnings of $49, with two exemptions claimed, require a withholding of $3.60. The company has an agreement with the employees' union to deduct weekly union dues of 25 cents. The employee has authorized the company to withhold $1.25 each week to purchase United States Savings Bonds for him. At the end of each 15 weeks, they purchase a bond in his name and send it to him. He also has authorized a deduction of $1 from his pay each week for five weeks to be given to the local Community Chest. The amount of his paycheck will be calculated as follows:

Gross Earnings (as calculated)		$49.00
Deductions:		
Federal Old-Age Benefit Tax	$ .49	
Federal Income Tax Withheld	3.60	
Union Dues	.25	
Bond	1.25	
Community Chest	1.00	
Total Deductions		6.59
Amount of Paycheck (take-home pay)		$42.41

THE PAYROLL A *payroll* is a list of employees showing their earnings for a stated period together with other relevant information. There are a wide variety of arrangements and forms of payroll pages, though all show essentially the same information. A short but typical weekly payroll is illustrated on pages 294 and 295.

There are several points that should be especially noted in this illustration. The heading of the page must show the exact period covered. The payroll illustrated covers all of the employees of a business for one week. If it were necessary or desirable to have a separate payroll for each of several departments, each page would indicate the department to which it related. In the illustration, the employees are listed alphabetically. They could be listed by their time clock or badge numbers. Sometimes the social security number of the worker appears on the payroll beside his name.

The columns headed "Daily Time" are self-explanatory. This information would be secured from either a time-clock record or a record kept by some employee whose duties included the timekeeping function. It is to be noted that the total hours worked are sorted

PAY

WEEK ENDED

NAME	EMPLOYEE NO.	DAILY TIME M	T	W	TH	F	S	EARNINGS REGULAR HOURS	RATE	AMT	OVERTIME HOURS	RATE	AMT
Adams, Charles	206	8	8	8	8	9	5	40	1 00	40 00	6	1 50	9 00
Brown, William	212	8	0	8	8	8	8	40	1 10	44 00			
Clark, Mary	211	4	8	8	8	8	8	40	1 00	40 00	4	1 50	6 00
Davis, Robert	205	8	8	7	0	0	0	23	1 30	29 90			
Fisher, Joseph	101									100 00			
Johnson, Peter	109	8	8	8	8	9	4	40	1 80	72 00	4	2 70	10 80
Montgomery, John	213	9	9	8	8	8	8	40	1 00	40 00	10	1 50	15 00
Smith, James	201	0	0	[illegible]	8	8	8	33	1 20	[illegible]			
Tucker, Ralph	207	8	8	4	8	8	8	40	1 20	48 00	4	1 80	7 20
Wilson, Virginia	118	0	0	8	8	8	4	28	1 50	42 00			
Totals										495 80			48 00

Weekly

between regular and overtime hours In this illustration all hours in excess of 40 a week carry the overtime (time and one-half) rate It should be noted that there is no record of the hours worked by Joseph Fisher He is paid at the rate of $100 a week, irrespective of the hours worked It would be reasonable to assume that he has an administrative or supervisory position — perhaps manager

The Tax Exempt Earnings column is for memorandum purposes only As soon as the earnings of the employee have reached $3 000 each year, there is no further deduction for the old-age benefit tax, although income tax is still withheld The information regarding the year-to-date earnings of each employee is usually secured from the *employee's earnings record*, which is illustrated and discussed later in the chapter. It is obvious that the gross earnings of Joseph Fisher and Peter Johnson have equaled or exceeded $3 000 this year before the beginning of the pay week in question Accordingly, no old age benefit tax is deducted. The total of the F O A B Tax column is equal to 1 per cent of the total of the Total Earnings column less the total of the Tax Exempt Earnings column

The Deductions columns are self-explanatory, with the exception of the Other column This column is used to show any withholdings for which no special column is provided In the illustration, the column records withholdings for Community Chest donations (marked "CC") and a deduction of $8 60 from the pay of Peter Johnson on an account receivable (marked "AR") Mr. Johnson owes the company money for goods he has purchased and has authorized payment in this manner

ROLL
OCTOBER 30, 1948

		DEDUCTIONS						PAID		ACCOUNTS CHARGED	
TOTAL	TAX EXEMPT EARNINGS	F.O.A.B. TAX	FEDERAL INCOME TAX WITHHELD	UNION DUES	BOND	OTHER	TOTAL	NET AMOUNT	CHECK NO.	SALES SALARIES	OFFICE SALARIES
49.00		.49	3.60	.25	1.25	CC 1.00	6.59	42.41	1386	49.00	
44.00		.44	2.80	.25		CC 1.00	4.49	39.51	1387	44.00	
46.00		.46	3.10	.25		CC 1.00	4.81	41.19	1388	46.00	
29.90		.30	2.60	.25			3.15	26.75	1389	29.90	
100.00	100.00		9.60		3.75	CC 2.00	15.35	84.65	1390		100.00
82.80	82.80		10.50	.25	3.75	AR 8.60	23.10	59.70	1391		82.80
55.00		.55	4.50	.25			5.30	49.70	1392	55.00	
42.90		.43	2.50	.25			3.18	39.72	1393	42.90	
55.20		.55	4.50	.25			5.30	49.90	1394	55.20	
42.00		.42	4.40	.25			5.07	36.93	1395		42.00
546.80	182.80	3.64	48.10	2.25	8.75	13.60	76.34	470.46		322.00	224.80

Payroll

When a journal entry is prepared to record the payroll, the total of this Other column must be sorted and classified so that the proper accounts will be credited. (See the journal entry on page 296.)

Total Earnings less Total Deductions equals the Net Amount Paid. The Check Number column is used to provide a cross-reference to the cash payments record.

The last two columns of the payroll illustrated are used to sort the gross earnings of the employees into the amounts to be charged to the various salary or wage expense accounts. This process or function is usually termed *payroll distribution*. If the company has a very extensive account classification of labor expense, it may be necessary to use a separate page or payroll distribution sheet to analyze the charges from each payroll. On this sheet will be a list of the employees and their gross earnings, followed by as many columns as there are wage and salary accounts. The earnings of each worker will be extended into the proper column. The column totals will show the amounts to be debited to the various accounts. Such a sheet was not needed in connection with the payroll illustrated since only two accounts received all of the charges.

A great variety of procedures may be followed in the preparation of payrolls. All of the information may be entered by hand, or there may be special machines employed. Many large concerns use punched card systems. The information is punched in a type of code onto various small cards. These cards are put into intricate machines that sort and classify them. The machines may automatically print the

payroll. Sometimes they prepare the paychecks at the same time. There are many mechanical aids to payroll preparation It should be kept in mind, however, that all procedures and systems, simple or intricate, have the same purpose: to compile and record the necessary information.

ENTERING THE PAYROLL IN THE ACCOUNTS The journal entry to record the payroll illustrated on the preceding pages would be as follows

Oct. 30	Sales Salaries	322 00	
	Office Salaries	224 80	
	Federal Old-Age Benefit Tax Payable		3 64
	Federal Income Tax Withheld		48 10
	Union Dues Payable		2 25
	Employees Bond Deductions		8 75
	Community Chest Donations Payable		5 00
	Accounts Receivable		8 60
	Accrued Payroll		470 46
	To record payroll for week ended October 30, 1948		

It should be mentioned that not all accountants would make the general journal entry shown above. The payroll itself can be treated as a journal and the totals of its columns, except those used for memorandum and miscellaneous purposes, can be posted directly to the ledger accounts If this is done, the Other Deductions column would have to be sorted and summarized so that the proper accounts would be credited.

While direct posting of the payroll is often expedient, it is usually preferable to prepare a general journal entry of the type illustrated. Sometimes the data relating to all of the pay periods that ended during the month are combined to prepare one summary general journal entry.

The payroll sheets are usually filed in chronological order. They are often kept in binders so as to become a payroll book – sometimes called the *payroll register*. Under the social security law, payroll records must be retained for a period of four years

RECORDING PAYMENT Workers are usually paid by check. A company with comparatively few employees will probably draw the checks on its regular bank account and record them in the check register. It is desirable to have a special column in that journal for this purpose. The entries to record the payment of the amounts due the employees in the case of the payroll illustrated on pages 294 and 295 would appear as follows:

CHECK REGISTER

DATE		NAME OF PAYEE	CHECK NO.	POST. REF.	GENERAL LEDGER DR.	ACCOUNTS PAYABLE DR.	ACCRUED PAYROLL DR.	PURCHASES DISCOUNT CR.	FIRST NAT'L BANK CR.
1948									
Oct.	30	Charles Adams	1386				42 41		42 41
	30	William Brown	1387				39 51		39 51
	30	Mary Clark	1388				41 19		41 19
	30	Robert Davis	1389				26 75		26 75
	30	Joseph Fisher	1390				84 65		84 65
	30	Peter Johnson	1391				59 70		59 70
	30	John Montgomery	1392				49 70		49 70
	30	James Smith	1393				39 72		39 72
	30	Ralph Tucker	1394				49 90		49 90
	30	Virginia Wilson	1395				36 93		36 93

Check Register Showing Payroll Checks

PAYROLL BANK ACCOUNTS; VOUCHERING THE PAYROLL

If a business has a large number of employees, it is likely to use a special payroll bank account. Only paychecks are drawn against this fund. Just before the paychecks are issued, one check in the exact amount of the total net payroll is drawn on the general bank account in favor of the payroll account and is deposited in the latter account. This means that there will be but one entry in the check register for each pay period.

This procedure relieves the executives who must sign all regular checks from the task of signing the paychecks. That duty will probably fall to the paymaster. Large organizations with many employees often have their paychecks signed by some mechanical means.

If the business uses a voucher system to control its cash disbursements, a voucher must be prepared each time money is transferred from the general bank account to the payroll bank account. There would not be a separate voucher for each paycheck.

On pages 303 to 307 an example is presented that illustrates, among other things, the use of the voucher system in connection with payroll accounting. Some of the entries shown in the example are in summary form. It should be noted, however, that when the voucher system is used, there are three steps and thus three entries required for *each* regular payroll (not including the eventual disposition of the payroll deductions). First the payroll is prepared and recorded. This gives rise to a credit to the accrued payroll account in the amount of the total net pay of the workers. Next a voucher for the latter amount is prepared and recorded in the voucher register. This transforms Accrued Payroll into Vouchers Payable. Finally a record of the payment of the voucher is made in the check register.

When the various taxes and liabilities resulting from payroll deductions are to be paid, individual vouchers will be prepared. These will be paid by checks drawn on the general bank account.

EMPLOYEE'S EARNINGS RECORD Most businesses find it necessary to keep a record of the earnings, time worked, deductions, etc., for each employee. Such records are needed:

(1) In the preparation of returns and reports required under both the Federal and the state social security laws.

(2) In the preparation of returns submitted to the Federal Treasury Department concerning earnings and income tax withholdings.

EMPLOYEE'S

Name Johnson, Peter Phone Main 0123
Address 16 Elm Street

Male x Married Number of
Female Single x Exemptions 1

Occupation Bookkeeper Pay Basis $72 00 per Day Week x Month

	PAY PERIOD ENDED	TOTAL WORKED		EARNINGS					
				REGULAR			OVERTIME		
		DAYS	HOURS	HOURS	RATE	AMOUNT	HOURS	RATE	AMOUNT
1									
2									
3									
4	Jan. 21		40	40	1 80	72 00			
5	Jan 31		40	40	1 80	72 00			
6	Feb 7		40	40	1 80	72 00			
7	Feb. 14		40	40	1 80	72 00			
8	Feb 21		46	40	1 80	72 00	6	2 70	16 20
9	Feb 28		40	40	1 80	72 00			
10	Mar 6		40	40	1 80	72 00			
11	Mar 13		40	40	1 80	72 00			
12	Mar 20		42	40	1 80	72 00	2	2 70	5 40
13	Mar 27		44	40	1 80	72 00	4	2 70	10 80
Quarter Total			412	400		720 00	12		32 40
1	Apr 3		44	40	1 80	72 00	4	2 70	10 80
2	Apr 10		42	40	1 80	72 00	2	2 70	5 40
3	Apr 17		40	40	1 80	72 00			
4	Apr 21		40	40	1 80	72 00			
11	Dec 11		40	40	1 80	72 00			
12	Dec 18		40	40	1 80	72 00			
13	Dec 25		40	40	1 80	72 00			
Quarter Total			540	520		936 00	20		54 00
Yearly Total			2017	1960		3,528 00	57		153 90

Employee's Earnings

(3) In the preparation of statements for each employee showing earnings and withholdings.

(4) To determine when the earnings of the employee reach $3,000 each year.

(5) In cases of disputes concerning earnings, withholdings, and paychecks, or in the event of retroactive pay adjustments.

(6) In cases where questions arise in connection with the Wages and Hours Law.

(7) To determine the rights of the employee in regard to bonuses, vacation pay, sick leave, and retirement or pension allowances.

(8) For use in making various statistical studies and analyses.

EARNINGS RECORD

Soc. Sec. No. 524-05-4968
Date Employed Jan. 19, 1948
Age 30
Date Becomes 65 Jan. 4, 1983

Clock No. 106
Dept. or Place of Work Office

Equivalent Hour Rate $1.80

TOTAL	DEDUCTIONS						PAID		GROSS EARNINGS YEAR TO DATE
	F.O.A.B. TAX	FEDERAL INCOME TAX	UNION DUES	BOND	OTHER	TOTAL	NET AMOUNT	CHECK NO.	
72.00	.72	9.00	.25			9.97	62.03	506	72.00
72.00	.72	9.00	.25			9.97	62.03	521	144.00
72.00	.72	9.00	.25			9.97	62.03	532	216.00
72.00	.72	9.00	.25			9.97	62.03	543	288.00
88.20	.88	11.40	.25			12.53	75.67	559	376.20
72.00	.72	9.00	.25			9.97	62.03	571	448.20
72.00	.72	9.00	.25			9.97	62.03	583	520.20
72.00	.72	9.00	.25			9.97	62.03	595	592.20
77.40	.77	9.60	.25			10.62	66.78	608	669.60
82.80	.83	10.50	.25			11.58	71.22	621	752.40
752.40	7.52	94.50	2.50			104.52	647.88		
82.80	.83	10.50	.25			11.58	71.22	635	835.20
77.40	.77	9.60	.25			10.62	66.78	648	912.60
72.00	.72	9.00	.25			9.97	62.03	660	984.60
72.00	.72	9.00	.25	3.75		13.72	58.28	672	1,056.60
72.00		9.00	.25	3.75		13.00	59.00	1469	3,537.90
72.00		9.00	.25	3.75		13.00	59.00	1481	3,609.90
72.00		9.00	.25	3.75		13.00	59.00	1493	3,681.90
920.00	8.20	123.60	3.25	48.75	8.60	187.40	832.60		
3,681.90	30.00	462.80	12.25	135.00	8.60	648.15	3,033.75		

Record for a Year

The form of these records varies, but all types show essentially the same information. A typical employee's earnings record is shown on pages 298 and 299. The information required is secured either from the payrolls or from the cards, memos, or records that are used to prepare the payrolls. A feature of many of the commercial payroll systems, which use special forms and often special-purpose machines, is an arrangement whereby information can be entered on the payroll sheets and on the employees' earnings records simultaneously. Sometimes the paychecks are made out in the same operation.

EMPLOYERS' PAYROLL TAXES The payroll taxes previously discussed were imposed upon the employees. The employer was concerned with them because it was his obligation, under the laws, to withhold them from the workers' pay and to remit them to the government. The taxes to be discussed in the following sections are borne by employers.

Federal Old-Age Benefit Tax. Employers also are required to contribute to the old-age insurance phase of the federal social security program. Their contribution is exactly the same as that required of employees: 1 per cent of the gross earnings paid to each employee up to $3,000 each year. The types of exempt employment are the same. The taxes must be paid at the same time that the portion withheld from the employees is remitted. Each quarterly report or return covers the contributions of both employer and employee.

Federal Unemployment Compensation Tax. Unemployment insurance is a major feature of the national social security program. Its purposes are (1) to give some relief to those who become unemployed as a result of economic forces outside of their control and (2) to encourage full employment. To finance the administration of the program, all employers covered by the law are subject to a federal tax of 3 per cent on the first $3,000 paid to every affected employee during a calendar year, less a credit of up to 90 per cent of this amount for unemployment compensation taxes paid by the employer under state laws. When an employer is subject to a tax of 2.7 per cent or more under state unemployment legislation, the federal tax rate paid is .3 of 1 per cent. No part of the federal unemployment compensation tax is levied on the employee.

The number of employers covered by this federal law is not so large as under the old-age and survivors' insurance section of the social security program. Only employers of *eight* or more persons are subject to the federal unemployment compensation law and tax. Some types

of employment are not included. The exempted types are generally the same as those under the old-age and survivors' insurance program. It should be noted that these statements apply to the federal law. The state laws vary as to requirements and coverage.

Each employer subject to the federal law must file a return and pay the tax within a month after the end of the calendar year.

State Unemployment Compensation Tax. The amounts raised by the federal tax discussed in the preceding section are given to the states to administer their unemployment compensation plans. Money paid to unemployed persons who qualify for benefits comes from the state tax levied upon the employers, based upon the earnings of employees. A very few states require employee contributions. The various state laws differ with respect to the types of covered employment and the number of workers an employer must have before the tax is applicable. In no case is the required number of workers greater than eight; in several states it is one.

The state taxes all have the same base: the first $3,000 paid to each covered employee on account of his earnings in that state. The tax rates are not uniform among the states. In general, however, they range up to 2.7 per cent. In a few states the upper limit is higher. Most of the states have merit-rating plans under which employers who provide steady employment for their workers and have a low turnover of employees earn a rating that reduces the tax rate. The state laws vary with respect to the type and the number of reports or returns that the employers must file. In general, employers must file a tax return and pay their tax in the month following each calendar quarter. In the illustrations that follow it will be assumed that the state tax rate is 2.7 per cent, that no contribution is required of employees, and that the employers' taxes must be remitted quarterly.

EMPLOYER'S SOCIAL SECURITY TAXES IN THE ACCOUNTS

It has already been noted that the employees' share of the old-age insurance tax is accumulated in a liability account during each quarter, to be reduced at the end of the quarter when the tax is remitted to the government. The record of the employer's share of the social security taxes should be made at the same time that the record is made of the payroll to which they relate. The liability of the employer for old-age insurance tax may be recorded in the account Federal Old-Age Benefit Tax Payable that is already credited with the employees' tax. In addition, it is necessary to have accounts with

Federal Unemployment Tax Payable and State Unemployment Tax Payable in which to record these tax liabilities

There is a difference of opinion as to the accounts that should be debited for the amount of the employer's taxes. Some accountants charge them originally to the wage and salary accounts, since the taxes have such a direct relation to the gross earnings. Many accountants charge the taxes to an account entitled Social Security Taxes. At the end of the period this account can be closed into the wage and salary accounts or its balance may be closed directly to the profit and loss summary account.

The entry to record the employer's social security taxes on the \$364 (\$546.80 − \$182.80 = \$364) subject to tax on the payroll illustrated on pages 294 and 295 would be as follows:

Oct. 30	Social Security Taxes	14 56	
	Federal Old Age Benefit Tax Payable		3 64
	State Unemployment Tax Payable		9 83
	Federal Unemployment Tax Payable		1 09
	To record employer's social security taxes on the taxable gross earnings of employees for the week ended October 30, 1948		

Some accountants would prefer to combine the entry above with the entry shown on page 296. In this way all charges and liabilities relating to the payroll would be recorded in one entry.

The federal old age benefit tax (both the employer's and the employees' share) and the state unemployment compensation tax must be paid within a month after the close of each calendar quarter. The federal unemployment compensation tax must be paid no later than January 31 of the next year. Social security taxes, as well as income taxes withheld, relate to wages *paid* during a particular quarter or year.

It is to be expected that the various social security tax and income tax rates may change. It is not impossible that the requirements as to the time of filing and the form of reports may be altered. It is highly unlikely, however, that either the social security program or the federal personal income tax — including the withholding feature — will ever be abandoned. These two things appear to be permanent features of the economic system.

PAYROLL ADJUSTMENTS AT THE END OF THE FISCAL PERIOD If the end of a fiscal period does not coincide with the end of a payroll period, it will be necessary to make an entry to record the charges and the credits that relate to the earnings during the current

incomplete pay period. Not only should the accrued wages and salaries be taken into account, but the entry should include the employer's social security taxes connected with those earnings.

For example, suppose that it is December 31, the end of the fiscal period. The last weekly pay period ended December 28. Investigation and analysis disclose that, since that date, office salaries in the amount of $100 and sales salaries in the amount of $200 have been earned. In no case has the salary of any employee yet reached $3,000. The entry to adjust would be as follows:

Dec. 31	Office Salaries	100.00	
	Sales Salaries	200.00	
	Social Security Taxes	12.00	
	Federal Old-Age Benefit Tax Payable		6.00
	State Unemployment Tax Payable		8.10
	Federal Unemployment Tax Payable		.90
	Accrued Payroll		297.00
	To record salary and social security tax accruals for the period December 29–31.		

In order not to disturb or disrupt the usual procedure that is followed and the customary entries that are made at the close of each regular pay period, a reversing entry should be made as of January 1, with the debits and the credits in the adjusting entry exactly reversed.

It should be pointed out that the accounts before adjusting may already reflect the accrued wages and other liabilities of the last *completed* pay period. It is possible that the last regular payroll has been completed and recorded but not yet vouchered and paid. The entry above, however, records the charges and the liabilities relating to the *current incomplete* pay period.

ACCOUNTING FOR PAYROLL ILLUSTRATED The example that follows is presented to illustrate several of the features of payroll accounting that have been discussed in the preceding pages.

The Acme Company began business on Monday, December 2. It formally closes its books on December 31. The work week consists of five days, and a payroll is prepared for each week. Each Tuesday the paychecks covering the earnings for the week ended the preceding Friday are distributed. The company utilizes a special payroll bank account and uses the voucher system.

The company and all of its employees are covered by both Federal and state social security laws. The state unemployment compensation tax rate is 2.7 per cent.

From Monday, December 2, to Friday, December 27, there were four full weekly pay periods. A summary of these payrolls is as follows:

On December 13, 20, and 27 similar entries were made to record the payrolls and the employer's taxes for those weeks.

At the end of each pay week, a voucher in the net amount of the week's payroll was prepared and recorded in the voucher register. The payee shown on each voucher and on the check that paid it was Payroll Bank Account. The checks drawn to pay these vouchers were recorded in the check register. They were deposited in the payroll account each week, and the paychecks themselves were drawn against these deposits. The entries for all four payrolls would appear as follows in the voucher register and the check register:

VOUCHER REGISTER

Date	Vchr. No.	Name	For	Paid Date	Paid Check No.	Vouchers Payable Cr.	Accrued Payroll Dr.
9	13	Payroll Bank Acct.	Payroll 12/6	12–10	113	1,137 00	1,137 00
16	28	Payroll Bank Acct.	Payroll 12/13	12–17	128	1,226 00	1,226 00
23	64	Payroll Bank Acct.	Payroll 12/20	12–24	164	1,315 00	1,315 00
30	106	Payroll Bank Acct.	Payroll 12/27	12–31	206	1,137 00	1,137 00

Voucher Register Showing Payroll Entries

CHECK REGISTER

Date	Name of Payee	Check No.	Vchr. No.	Vouchers Payable Dr.	Purchases Discount Cr	First Nat'l. Bank Cr.
10	Payroll Bank Acct.	113	13	1,137 00		1,137 00
17	Payroll Bank Acct.	128	28	1,226 00		1,226 00
24	Payroll Bank Acct.	164	64	1,315 00		1,315 00
31	Payroll Bank Acct.	206	106	1,137 00		1,137 00

Check Register Showing Payroll Entries

On December 31 the accounts must be adjusted to reflect salary and tax accruals for the two working days since the end of the last complete pay week. The general journal entry to accomplish this would be as follows. Note that the entry includes the employer's social security taxes.

Dec. 31	Officers Salaries	200 00	
	Sales Salaries	210 00	
	Office Salaries	90 00	
	Social Security Taxes	20 00	
	Federal Old-Age Benefit Tax Payable		10 00
	State Unemployment Tax Payable		13.50
	Federal Unemployment Tax Payable		1.50
	Accrued Payroll		495 00
	To record salaries and social security taxes accrued for December 30 and 31		

As of December 31 the salary and the social security tax expense accounts would be closed to the profit and loss summary account by the following general journal entry

Dec 31	Profit and Loss Summary	6,240 00	
	Officers Salaries		2,200 00
	Sales Salaries		2,910 00
	Office Salaries		890 00
	Social Security Taxes		240 00
	To close the salary and social security tax accounts		

It should be noted that, in place of the foregoing entry, the social security taxes account could have been closed to the salary accounts in the proper proportions, and these accounts in turn could have been closed to Profit and Loss Summary.

The adjusting entry of December 31 should be reversed after the income and the expense accounts are closed By this means the ledger accounts will be left in such a condition that the next regular payroll can be recorded in the customary fashion without regard to the fact that the pay period overlaps two fiscal periods. This reversing entry would be as follows:

Jan 1	Federal Old-Age Benefit Tax Payable	10 00	
	State Unemployment Tax Payable	13 50	
	Federal Unemployment Tax Payable	1 50	
	Accrued Payroll	495 00	
	Officers Salaries		200.00
	Sales Salaries		210 00
	Office Salaries		90 00
	Social Security Taxes		20 00
	To reverse the entry that recorded salary and social security tax accruals as of December 31.		

Since a calendar quarter has ended, even though this company has not been in business that long, the federal old-age benefit tax and the state unemployment tax are due by the end of the month. For the same reason the federal income tax withheld must be remitted to the Collector of Internal Revenue. (If this were any but the last month in the quarter, the amount of income tax withheld would have to be paid to a government depositary within fifteen days since the withholdings were in excess of $100.) The federal unemployment tax is also due, since a calendar year has ended. The premiums withheld for the employees group insurance are assumed to be due at the end of each month. The company must prepare the proper returns to accompany the payments in each case. A voucher would be prepared to cover each disbursement and would be recorded in the voucher register. A record would be made in the check register when the checks are drawn. These entries would appear as follows:

VOUCHER REGISTER

Date		Vchr. No.	Name	For	Paid Date	Paid Ck No.	Vchrs. Pay. Cr.	General Ledger Dr Name of Account	P.R.	Amt.
Jan.	2	109	Collector of Internal Revenue	Fed. old-age tax	1-2	209	110.00	Federal Old-Age Benefit Tax Payable		110.00
	2	110	State Treasurer	State unemployment tax	1-2	210	148.50	State Unemployment Tax Payable		148.50
	2	111	Collector of Internal Revenue	Income tax withheld	1-2	211	510.00	Federal Income Tax Withheld		510.00
	2	112	Collector of Internal Revenue	Fed. unemployment tax	1-2	212	16.50	Federal Unemployment Tax Payable		16.50
	2	113	Best Insurance Co.	Employee group insurance	1-2	213	120.00	Group Insurance Premiums Payable		120.00

CHECK REGISTER

Date		Name of Payee	Check No.	Vchr. No.	Vouchers Payable Dr.	Purchases Discount Cr.	First Nat'l. Bank Cr.
Jan.	2	Collector of Internal Revenue	209	109	110.00		110.00
	2	State Treasurer	210	110	148.50		148.50
	2	Collector of Internal Revenue	211	111	510.00		510.00
	2	Collector of Internal Revenue	212	112	16.50		16.50
	2	Best Insurance Co.	213	113	120.00		120.00

Voucher and Check Registers Showing Entries for Liabilities Arising from Payrolls

It should be noted that the several remittances for taxes represent the amount of taxes applicable to the salaries actually *paid* during the period just ended. The various taxes applicable to the salaries accrued on December 31 will be included in the payments that will be made at the time the next regular returns are filed.

SIMPLIFIED PAYROLL PROCEDURE FOR FEW EMPLOYEES

In the preceding illustration it was assumed that the nature and the size of the business made the use of a voucher system expedient. It was also assumed that the number of employees was large enough to warrant the preparation of formal payrolls and the use of a special payroll bank account. Many small businesses do not need such elaborate records and procedures.

For example, assume the following: A business has but three employees who are paid on a monthly basis on the last day of each month. They are paid by regular business checks drawn on the regular bank account, and their gross earnings are all charged to the one account Salaries. The voucher system is not used.

In such a situation it is not likely that a formal payroll would be prepared. At the end of each month reference to previous records or informal notations will provide the information for the calculation of the gross earnings of each person. Similar sources will provide all necessary data for the determination of the amount of income tax to be withheld in each case. It is almost a certainty that some form of earnings record will be kept for each employee, as even the smallest businesses need this record to provide the information necessary for the preparation of the various tax returns and statements. Reference to this record will disclose whether each employee has yet reached the $3,000 limit. Other notations will provide information about any other deductions.

From such information a check is prepared for each person on the last day of the month. Regular check forms are used. The pay period, the gross earnings, and the deductions can be noted on the checks themselves or on a small slip of paper to be clipped to the check. Each check is recorded individually as shown in the cash payments journal on page 309. The gross amount of the salaries is shown in the Salaries Dr. column, the income tax and old-age benefit withholdings are shown in the credit columns provided for this purpose, and the net amount of each check is shown in the First National Bank Cr. column.

CASH PAYMENTS JOURNAL

Date		Payee	For	Check No.	Salaries Dr.	Federal Income Tax Withheld Cr.	F.O.A.B. Tax Payable Cr.	Purchases Discount Cr.	First Nat'l. Bank Cr.
May	31	D. M. Evans	Salary — May	547	350.00	35.40	3.50		311.10
	31	Ruth Gordon	Salary — May	548	220.00	24.90	2.20		192.90
	31	J. L. Roberts	Salary — May	549	300.00	28.20	3.00		268.80

A general journal entry is needed to record the liability for the employer's share of the federal old-age benefit tax. In the present illustration there would be no federal unemployment insurance tax since there are less than eight employees. In some states, the employers of less than eight persons are subject to a state unemployment insurance tax. It is assumed that such is not the case in the present illustration. Accordingly the entry needed is as follows:

May 31	Social Security Tax	8.70	
	Federal Old-Age Benefit Tax Payable .		8.70
	To record employer's social security tax on the taxable gross earnings of employees for the month of May.		

Inasmuch as the salaries were paid on a monthly basis on the last day of the month, there is no salary accrual to record. When tax returns are prepared and checks are drawn in payment of the various taxes, the record of payment would be made in the cash payments journal as debits to the tax liability accounts.

This simplified procedure can be used in many situations that may be a little more complicated than the one illustrated. For example, weekly payrolls can be similarly handled, though this will give rise to end-of-the-month general journal entries to record salaries and tax accruals. Such entries would be reversed as of the first of the next month. Sometimes formal payrolls are prepared, but *only* for the purpose of facilitating the preparation of the paychecks themselves. The first journal record is made in the cash payments journal as illustrated.

QUESTIONS

1. Peter Smith, who tends a blast furnace at a steel mill, is called a "wage earner." Oliver Jones, who works as an accountant for the same company, is called a "salaried employee." Apart from the fact that the nature of the work they perform is very different, why are the two men referred to in these different ways?

2. The X Company pays time-and-one-half rates for all hours worked in excess of 40 per week. Work on Sunday is paid "double time," but such hours are not counted in figuring ordinary overtime. One employee, whose regular rate is $1.50 an hour, worked 4 hours on Sunday, 8 hours each day Monday through Thursday, 9 hours on Friday, and 5 hours on Saturday. Calculate his gross earnings for the week.

3. Suppose that an employee authorized the withholding from his pay of any amounts due for goods purchased from the company. In recording the payroll, what account would be credited for such deductions?

4. What are the general features and tax rates of the unemployment insurance system of your state? Are employees required to contribute?

5. Are the employer's social security taxes always 4% of the gross earnings of each employee? Explain.

6. If the payroll illustrated on pages 294 and 295 was to be treated as a special journal, which of the money column totals would *not* be posted? Why?

7. (a) What are the advantages of using a special payroll bank account? (b) Is such a procedure facilitated by also employing the voucher system? Why?

8. Explain how it is possible to have a credit balance in the accrued payroll account at the end of the period *before* any adjustments have been recorded.

9. Why should the entry that is made at the end of the fiscal period to adjust for earnings during the current incomplete pay period be reversed at the start of the new fiscal period?

10. Randolph Adams works for a company that closes its books and prepares complete statements at the end of each month. To and including August 29, the end of the last full pay period, he has earned $2,990. On August 30 and 31 he earned $30. Assuming full social security tax coverage, what entry would the company make to record the wage and the social security tax accrual with respect to Adams?

PROBLEMS

1. The Superior Company has eight employees in its plant. They are paid on an hourly basis and receive time-and-a-half pay for all hours worked in excess of 40 a week. The record of time worked for the week ending Saturday, October 16, is shown below, together with other relevant *information:*

Employee	Plant Dept.	M	T	W	Th	F	S	Straight Time per Hour	Bond Deduction	Paid by Check
A	2	8	8	8	8	8	4	$1.20	$	618
B	2	0	0	0	8	8	4	1.20		619
C	1	8	8	8	8	8	1	1.50	1.25	620
D	2	8	8	8	8	8	4	1.20	1.25	621
E	1	8	8	8	0	0	0	1.50		622
F	2	8	8	0	8	8	4	1.20		623
G	1	8	8	8	8	8	0	1.50	3.75	624
H	1	8	0	8	8	8	0	1.50		625

Assume a federal income tax withholding of 10% for each employee. Union dues of 50 cents were deducted for each employee.

C had been paid $2,980 (gross before deductions) during the year up to and including the paycheck for the week previous. G had received $3,100 prior to the present week.

The state unemployment tax rate is 2.7%.

Instructions: (1) Prepare a payroll similar to that illustrated on pages 294 and 295. Distribute the charges between Departments 1 and 2.

(2) Prepare a general journal entry to record the payroll for the week. Include the employer's social security taxes in the entry.

(3) The company uses a voucher system. Give the entries in general journal form to record the vouchering and the payment of the payroll.

2. The Value Sales Company began business on January 2. All employees are paid once a month. They receive their paychecks on the fourth day of each month for their services during the preceding month. A summary of the payrolls for the first six months is as follows:

	Administrative Salaries	Sales Salaries and Commissions	F.O.A.B. Tax Withheld	Federal Income Tax Withheld	Net Amount Paid
January	$500	$300	$ 8	$ 75	$ 717
February	500	600	11	95	994
March	500	500	10	90	900
April	500	600	11	95	994
May	500	600	11	95	994
June	500	700	12	100	1,088

The payroll vouchers were prepared and the employees were paid on the fourth day of each month. On April 20, payments of the proper amounts due in each case were made to the various governmental agencies. The company and all the employees are subject to all the social security taxes. The state unemployment compensation tax rate is 2.7%. The company uses the voucher system.

Instructions (1) Prepare the entries in general journal form to record in order

(a) The payrolls, including the employer's social security taxes. Make only quarterly summarizing entries as of March 31 and June 30

(b) The wage payments during the first six months. Make only quarterly summarizing entries as of March 31 and June 30

(c) The payments in April of the various taxes

(2) Open "T" accounts for the following Accrued Payroll, Federal Old Age Benefit Tax Payable, State Unemployment Tax Payable, Federal Unemployment Tax Payable and Federal Income Tax Withheld Post to these accounts

(3) Briefly explain what the credit balance *as of June 30* in each T account represents When will each of these liabilities next be reduced and by what amount?

(4) If the company were to close its books at the end of each month or each quarter would any adjusting entries be needed with regard to salaries? Explain

3 The Melrose Wholesale Company employs eight people Four receive *straight weekly salaries* and four are *employed on an hourly basis* with time-and a half pay for any hours in excess of 40 a week The following table shows the name and the number of the employees, the classification of salaries the hours worked the rate of pay, and the income tax withholding for the week ended April 20

INCOME

CHAPTER XVIII

ACCOUNTING FOR TAXES

TAXES AND ACCOUNTING Accounting and taxes are related in two respects: (1) Any taxes connected with the property and the operations of a business must be properly recorded in the accounts and reported in the financial statements. (2) The amount of the liability for many taxes is determined from information supplied by the accounting records. Outstanding examples of this type are income taxes, payroll taxes, and sales taxes.

NATURE OF TAXES A *tax* is a required contribution to the support of a government or a governmental agency. Most taxes are levied in accordance with what is termed the "ability to pay" principle. There usually is no relationship between the amount a taxpayer must contribute and the benefits he receives.

As the scope of governmental activities has expanded, the need for revenue has grown. The result is that there are taxes imposed at almost every step in the economic activity of the nation. There are taxes imposed upon the ownership of property and other taxes connected with its purchase and sale or exchange. There are taxes on the processing and manufacture of certain products. The income of individuals, estates, trusts, and corporations is taxed. The transfer of property by gift and at death is taxed.

The particular taxes with which each business undertaking is concerned depend, in part, upon the location of the business, the form of its organization, the nature of its operations, and the types of property it uses. There are four types of taxes, however, that affect almost every business. These are (1) income taxes, (2) property taxes, (3) sales taxes, and (4) payroll taxes. Payroll taxes were discussed in the preceding chapter. Income, property, and sales taxes will be treated in this chapter. Since the subject of corporations is not introduced until Chapter XXI, the discussion of income taxes is here limited to a survey of the principal features of the federal tax on the income of individuals.

FEDERAL TAX ON THE INCOME OF INDIVIDUALS The Sixteenth Amendment to the Federal Constitution (ratified in 1913) gave Congress the power to tax incomes. Since that time, a succession of laws has been passed imposing taxes on the incomes

of individuals, estates, trusts, and corporations. The tax on the income of individuals is the largest single source of revenue for the federal government. Each year some fifty million persons must file income tax returns. Most of them have to pay some tax. Collectively, they contribute billions of dollars to the federal treasury.

GROSS INCOME An income tax return must be filed by every person whose *gross income* for the taxable year is in excess of the minimum amount stated in the law. All income must be reported, with the exception of certain types that the law specifically exempts. Following is a table showing the principal items that must be reported as well as those that may be omitted.

Examples of Income That Must Be Reported	Examples of Income That Need Not Be Reported
Wages, salaries, bonuses, and commissions	Pensions and disability compensation to war veterans and their families
Tips and gratuities for services rendered	Federal and state social security benefits
Dividends and interest	Gifts, inheritances, and bequests
Industrial, civil service, and other pensions, and endowments (annuities may be partially exempt)	Workmens' compensation, insurance, damages, etc., for bodily injury or sickness
Rents and royalties	Life insurance proceeds paid upon death
Profits from a business or a profession	Interest on state and municipal bonds and on certain federal bonds issued before March 1, 1941.
Profit from the sale of real estate, securities, and other property.	
The taxpayer's share of partnership profits	
The taxpayer's share of estate or trust income	
Contest prizes	
Gambling winnings	

BUSINESS INCOME It is important to note that the income of a business, as such, is not taxed unless the business is organized as a corporation. In that case, the income is subject to the corporation income tax.

An unincorporated business is considered as a separate entity for accounting purposes, but the business and its owner are not separate under the income tax law. The profit or the loss of a sole proprietorship is reported in the personal income tax return of the proprietor. Business partnerships must file special income tax returns, but they pay no

income tax; instead, each partner must report his share of the profit or the loss of the firm in his personal income tax return. It makes no difference whether a proprietor or a partner has withdrawn all, part, or none of the profit. He must report his *distributive* share of the income of the business; the amount actually distributed is of no consequence.

The individual income tax return forms provided by the government have spaces in which the taxpayer can show the income and the expenses of his business and his share of any partnership profits or losses.

DEDUCTIONS FROM GROSS INCOME The amount of the tax each individual must pay depends upon the amount of his gross income, the deductions he may take, the number of exemptions to which he is entitled, and the tax rates currently in force. The deductions allowed by the law are of two types: (1) deductions to determine what is called *adjusted gross income* and (2) personal deductions. The category in which the deduction is allowed makes a difference, because it is permissible to use a so-called *optional standard deduction* instead of taking the personal deductions. This sometimes serves to reduce the tax.

The first class of deductions includes ordinary and necessary expenses directly connected with the taxpayer's business or profession. Cost of sales, salaries and wages, employer's social security taxes, property taxes, depreciation, utilities, insurance, advertising, and interest on business indebtedness are examples of this type of deduction. Costs and expenses of this type are itemized and deducted in arriving at the amount of net profit or loss from the taxpayer's business or profession. Certain other expenses incurred in connection with income-producing activities of the taxpayer are also included in this group.

A taxpayer may have some expenses that are only partially deductible as business expenses. For example, a sales agent may use his car two thirds of the time for business purposes. That portion of all his car expenses — gas, oil, grease, repairs, taxes, insurance, depreciation, etc. — is a legitimate deduction in computing adjusted gross income. Employees may deduct travel expenses incurred while *away from home* in connection with their work; but they must include any reimbursement of these expenses in their gross income. Gross income less this first class of deductions equals *adjusted gross income.*

The most important items in the second class of deductions are as follows:

Contributions to religious, charitable, educational, scientific, or literary organizations if they are not organized for profit or for the purpose of influencing legislation. The deduction is limited to 15 per cent of adjusted gross income.
Interest.
Property taxes.
State income taxes.
State or local retail sales taxes.
Auto license fees.
Poll taxes.
State gasoline taxes in most states. The federal excise taxes on luxuries, the employee's federal old-age benefit tax, and federal income taxes are the principal types of taxes that may *not* be deducted.
Nonbusiness losses (not covered by insurance) arising from fire, storm, shipwreck, or other casualty or from theft.
Medical, dental, and hospital expenses in excess of 5 per cent of adjusted gross income.

If the total of these deductions is not so large as the optional standard deduction, the taxpayer may use the latter. It amounts to 10 per cent of adjusted gross income or $1,000, whichever is the smaller.

Adjusted gross income less personal deductions (or the optional standard deduction) equals *net income.*

EXEMPTIONS As one means of adjusting the burden of taxation to the economic responsibilities of the taxpayers, the law allows certain exemption credits. In recent years the value of each exemption has been $600, though it is not unlikely that this amount may be changed. Each taxpayer may have one exemption for himself. He may have another exemption for his spouse if she has no income and is not the dependent of another. If husband and wife file a joint return (a return covering the income of both), they may take two exemptions. A taxpayer may take one exemption for each dependent. A dependent is a person (1) related to the taxpayer (generally not distant relatives), (2) having gross income of less than $500, and (3) receiving over one half his support during the year from the taxpayer.

Beginning with 1948, a taxpayer and his spouse may each claim an extra exemption for blindness, and another if he or she is over 65 years of age. Thus, if both a taxpayer and his wife are over 65 and both are blind, they may take a total of six exemptions. The extra exemptions for blindness and old age do not apply to dependents.

The amount of income to which the tax rates apply is net income less the sum of the exemption credits.

Gross income, deductions, and exemptions may be summarized as follows:

Gross income − business deductions	= adjusted gross income
Adjusted gross income − personal deductions (or an optional standard deduction)	= net income
Net income − exemption credits	= amount to which tax rates are applied

For the convenience of taxpayers who have adjusted gross incomes of less than $5,000 and who do not want to itemize their personal deductions, the government has prepared tax tables that provide for optional standard deductions. The table shows the tax for any amount of adjusted gross income (up to $5,000) for any number of exemptions.

ACCRUAL AND CASH BASIS For tax purposes, income may be calculated on either the *accrual basis* or the *cash basis* except where inventories are involved. In that case an accrual basis is mandatory as to inventories; that is, beginning and ending inventories must be taken into consideration in computing cost of goods sold. When the accrual method or basis is used, income is included in the period in which it is earned and expenses are deducted in the period in which they are incurred. Entirely apart from tax considerations, this method is considered to be the proper way of calculating the periodic income of most business enterprises.

When the cash basis is used, income is recognized in the period in which it is received and expenses are taken in the period in which they are paid. On this basis the receipt of income may be either actual or constructive. Constructive receipt means that the income was available to the taxpayer though not yet collected. Interest credited to the taxpayer's savings account is an example. A taxpayer using the cash basis cannot deduct the entire cost of long-lived assets in the year of purchase but may, instead, take a deduction for depreciation each year.

The cash basis is used by most individuals. When a taxpayer's entire income is from such things as wages, salaries, dividends, and interest, this basis is simpler and is generally satisfactory. A taxpayer may not shift from one basis to the other without official permission.

CAPITAL GAINS AND LOSSES In nearly every case a taxpayer must include in his taxable income all gains he has realized upon the sale (and, often, the exchange) of any of his property. It does not matter whether the property has been used in his trade or business or for some other purpose. A gain on the sale of the tax-

payer s personal residence or car must be included Losses from the *sale of business property or property that was used in connection with* some profit-seeking venture are usually deductible Losses from the sales and the exchange of other property are not generally recognized

The amount of the gains or the losses from the sale of what are legally defined as *capital assets* are subject to special treatment The law states that a capital asset is any property owned by a taxpayer *except*

1) The property that constitutes the stock in trade of the taxpayer
(2) Depreciable property used in the taxpayer s trade or business
3) Land and other real property used in the taxpayer s trade or business
(4) *Non interest bearing government obligations issued on a discount* basis and maturing within one year

Shares of stock bonds and land in the possession of most tax payers are important examples of capital assets Gains and losses from their sale are classified as between *long term* and *short term* capital gains and losses The distinction rests on the length of time the assets were owned For several years the dividing line has been six months It is not impossible that this may be changed Until that occurs a short term capital gain or loss is considered to arise from the sale of capital assets held for not more than six months A holding period in excess of six months gives rise to a long term capital gain or loss

Only 50 per cent of long term capital gains and losses are taken into account for tax purposes but 100 per cent of short term capital gains and losses are recognized There is a limit upon the amount of any *net* capital loss that may be deducted each year Any such losses in excess of the limit may be carried forward and possibly absorbed in the next five years While a taxpayer s personal residence falls within the definition of a capital asset it is only so treated in the event of a gain upon its sale or exchange there is no deduction per mitted in the event of a loss

The maximum tax on long term capital gains is 50 per cent of the gain recognized in other words 25 per cent of the entire capital gain Whenever the combined normal tax and surtax on any portion of the taxpayer s income is in excess of 50 per cent he should take advantage of this provision in computing the tax on any long term capital gain

INCOME TAX RATES The taxable net income of each individual is subject to both a *normal tax* and a *surtax* At one time these rates applied to different bases in almost every case Certain types of income were subject to the surtax only This

is still true, but to a very limited extent. At the present time all of the net income of most taxpayers is subject to both taxes. For that reason the government provides combined normal tax and surtax rate schedules to meet the needs of the majority of taxpayers.

A major characteristic of the income tax rates is their progressive nature. The rates are established on a bracketed basis; successive segments of income are subject to increasing percentages of tax. Following is a short table of hypothetical rates, presented in a form that illustrates the progressive feature:

First $2,000 of taxable income subject to a rate of 17%.
Next $2,000 of taxable income subject to a rate of 19%.
Next $2,000 of taxable income subject to a rate of 23%.
Next $2,000 of taxable income subject to a rate of 27%.
Next $2,000 of taxable income subject to a rate of 32%.
Etc.

At these assumed rates, the tax on an income of $3,000 (net after all deductions and exemption credits) would be as follows:

$2,000 at 17%	=	$340
$1,000 at 19%	=	190
Total		$530

The schedule of rates is frequently changed by Congress, but the progressive characteristic is a permanent feature of the income tax system. The progressive feature, similar to the exemption provisions, is a practical application of the "ability to pay" principle.

Beginning with 1948, husbands and wives who file joint returns (including all of the income, deductions, and exemptions of both) can calculate their tax as twice the amount of the tax on one half of their combined net income. This may result in a considerable tax saving. It should be apparent that the tax on a $10,000 income is considerably more than the sum of the taxes on two incomes of $5,000 each. This provision was enacted to give all married taxpayers the same tax advantage as that previously enjoyed by married residents of the few states that have community property laws.

TAX RETURNS; PAYMENT Every individual who has a gross income in excess of the minimum stated in the law must file a tax return. This is true even though he may not have to pay any tax. The first time a taxpayer who keeps records files a return, he may choose any twelve-month period ending on the last day of a month for his fiscal year. Most individual taxpayers choose the calendar year. The period chosen cannot be changed without permission

from the government A taxpayer who keeps no records must file on a calendar year basis The return must be filed within two and one-half months after the end of the taxpayer's fiscal year Any balance due must be paid at that time A taxpayer whose income has been subject to tax withholding or who has been making payments on his estimated tax may find he has no more to pay, but he must file a final return He may discover that his tax has been overpaid In that case, he may either ask for a refund or instruct the government to apply the credit against his tax liability for the next year

In 1943 the tax law was changed to put individual taxpayers on a 'pay-as-you-go basis The manner in which employers must withhold the tax from wages paid to their employees was discussed in Chapter XVII Any taxpayer whose income is not subject to withholding or only partially so or a person whose income is fairly large (even if it is subject to withholding) must file a *Declaration of Estimated Tax* during the year and must make payments on his anticipated tax liability The law sets forth the conditions that make this necessary There is provision for installment payments in most cases Owners of businesses, professional people taxpayers with salaries over certain minimum amounts and persons with investment incomes must follow this procedure They must, of course, file a final return at the proper time and pay any balance due or indicate the disposition of any overpayment

INDIVIDUAL INCOME TAX PROBLEM ILLUSTRATED To illustrate the determination of the income tax of an individual taxpayer, the following facts are assumed

W W Reed owns and operates a drugstore He also owns an apartment house in a nearby town He is married and has three children Neither Mrs Reed nor the children have any income Mr and Mrs Reed are under 65 years of age and neither is blind

Mr Reed s income for the year was as follows

Net profit from business owned (Sales were $110,000 cost of sales $64 000, and other expenses of the business, including selling expenses administrative expenses depreciation of building furniture and delivery equipment, interest on notes payable taxes on business property, and payroll taxes were $26 000)	$20,000
Net income from apartment house (Rents totaled $4 000 Taxes insurance repairs and expenses of trips to look after the property were $1,100 The original cost of the building was $30 000 and the estimated depreciation was $900)	2 000

Interest on bank deposits	$ 400
Dividends received	500
Profit on sale of land (Land was sold for $16,000; it had been purchased several years before for $12,000.)	4,000
Insurance proceeds received (Policy was on life of taxpayer's mother who died during the year.)	10,000

His personal expenses during the year were as follows:

Interest payments on personal loans	$ 700
Property taxes on residence	200
Federal income taxes paid during year on Declaration of Estimated Tax filed early in year	4,000
State income taxes paid	100
Contributions to church, Community Chest, Red Cross, Boy Scouts of America	700
Fire loss at home (Damage amounted to $3,000; insurance company paid $2,500.)	500
Family medical expenses	400
Other personal and family expenses	12,000

Mr. Reed will report the following income, deductions, and credits:

Income		
Gross income less deductions for adjusted gross income:		
Net profit from business		$20,000
Net income from apartment house		2,000
Interest on bank deposits		400
Dividends received		500
Profit from sale of land (50% of capital gain of $4,000)		2,000
Adjusted gross income		$24,900
Personal Deductions		
Interest on personal loans	$700	
Property taxes on residence	200	
State income taxes paid	100	
Contributions	700	
Fire loss	500	
Total		2,200
Net income		$22,700
Less: 5 exemptions at $600 each		3,000
Net income subject to tax rates		$19,700

Using the hypothetical rates shown on page 319, the tax liability would be calculated as follows

Net income subject to tax (as above)		$19,700
One half of this amount		$ 9,850
Tax on $9,850		
$2,000 at 17%	$340	
2,000 at 19%	380	
2,000 at 23%	460	
2,000 at 27%	540	
1 850 at 32%	592	$ 2,312
Total tax (2 x $2,312)		$ 4,624
Tax payments during year based on Declaration of Estimated Tax		4,000
Balance due (to accompany final joint return)		$ 624

Several points should be noted in this illustration The first is that the items of income are shown *net* of the deductions for adjusted gross income On the tax return both the gross income and the deductions would appear in the proper schedules Since the sale of the land resulted in a long-term capital gain, only 50 per cent of the profit is taken into account In order to be certain that he was not paying more than necessary, Mr Reed would calculate his tax by the so-called "alternative method" wherein the liability is calculated on the net income minus any net long-term capital gain To the amount of this partial tax, 50 per cent of the recognized net long-term gain is added (50 per cent of $2,000 in this case) Calculated in this manner, Mr Reed's tax would be $4,984 Since the regular computation gives the lower tax, it is the one that is used

The insurance proceeds from the policy on Mr. Reed's deceased mother are not income Since the contributions were not in excess of 15 per cent of the adjusted gross income, they are fully deductible. Only medical and dental expenses in excess of 5 per cent of adjusted gross income may be deducted This limit was not reached in this case. Personal and family expenses are not deductible. Since the optional standard deduction cannot exceed $1,000, Mr. Reed reduces his tax by itemizing his personal deductions

The Reeds have a much smaller tax as a result of filing a joint return than they would if they filed separate returns. It should be noted that the amount of the tax is exactly twice the tax on one half of the net income subject to the tax rates.

INCOME TAX RECORDS Most individuals do not find it necessary to keep formal journals and ledgers relating to their personal financial affairs. It is apparent, however, that each taxpayer should keep records that are sufficient to enable him to prepare his tax returns. It is wise to keep a copy of all returns submitted. A record of all tax withholdings and payments should be retained. The burden of proof as to the accuracy of income tax calculations and the payments that have been made is upon the taxpayer.

Since the income of unincorporated businesses, as such, is not taxed, it is not usual to find any account for income tax expense in their ledgers. It is reasonable to consider that at least part of the tax should be charged to the operations of the business if its profit is a cause of some or all of the tax the owner must pay. It is very difficult, however, to apportion income taxes because of the progressive nature of such taxes and the fact that their calculation involves the various personal factors that have been discussed. If the owner should pay his tax by checks drawn on the business bank account, the transactions are recorded simply as personal withdrawals by the proprietor.

NATURE OF PROPERTY TAXES Property taxes are a principal source of revenue for local governmental units. Counties, cities, and school districts, for example, secure most, and in some cases all, of their funds by imposing taxes upon the owners of property. Some state governments tax property.

Types of Property. In law, all property is either real property or personal property. *Real property,* also called *realty* or *real estate,* includes land and anything permanently attached to the land. Buildings, trees, fences, sewers, sidewalks, and other improvements to land come within the definition of real property. *Personal property,* also termed *personalty,* includes everything else capable of being owned.

Assessed Value. Property taxes are based upon the assessed value of the property, which is determined by the tax assessor. The assessed value is generally much less than the fair market value of the property. The assessor will usually decide upon the assessed value of real estate without reference to any accounting records that the owner may have. Personal property may also be appraised by an assessor, or the property owner may declare his property and state its value. In the latter case, the accounting records of the owner may be helpful.

Tax Rates. A governmental unit determines its tax rate each year by dividing the total amount of money to be raised from the tax

by the assessed value of all of the property within its jurisdiction For example if the assessed value of all of the property in a county is \$100 000 000 and the total tax levy that year is to be \$2 000 000 the county tax rate for the year will be 20 mills (2 cents) per \$1 of assessed value (\$2 000 000 ÷ \$100 000 000) A person whose property is assessed at \$30 000 will have to pay a tax of \$600 (.02 × \$30 000) In some cases the tax rate for real property is established separately from the rate for personal property If this is done the latter is usually lower

Collection of Taxes Most government units have a fiscal year beginning July 1 The assessment date is often in the spring Real estate and personal property taxes may be billed separately, though a taxpayer having both types of property usually receives one statement covering both levies Very frequently the law provides that the tax on real property can be paid in two equal installments possibly 50 per cent on or before December 1 and the balance on or before April 1 of the next year Usually the personal property tax must all be paid on or before the earlier date If the taxes are not paid on time they become *delinquent* In this case a penalty charge is added to the amount of the tax If the taxes and penalties are not paid within a specified number of years the property may be seized by the government and sold for taxes Property taxes become a lien against the property usually from the date of assessment until they are paid A purchaser of property on which the taxes have not been paid acquires it subject to the lien or prior claim of the tax collector

In many cases property is subject to property taxes levied by more than one jurisdiction For example all the property located in a certain school district may also be within the boundaries of a town or city and the latter in turn within a county In such a case it would not be unusual to find that the county bills and collects the taxes for all of the jurisdictions The money collected is distributed among the units in the proper proportion This procedure avoids a duplication of effort and expense and is more convenient for the taxpayers.

ACCOUNTING FOR PROPERTY TAXES Taxes on the assets used in a business are considered to be a business expense if the property actually belongs to the business itself, as in the case of corporations or if it legally belongs to the owner of the business This treatment is possible because the tax on business property is not affected by the kind and the amount of any other property owned by the taxpayer

Property tax expense does not accrue or accumulate in the same sense as depreciation, interest, or expiring insurance. The tax relates to the ownership of property at a specific moment, not because of ownership or use over a period of time. Because the tax expense recurs each year, however, it is usually associated with the operations of the year. In most cases the expense is recognized in the year in which the tax statement is received. If the accounts are kept on an annual basis, the receipt of the tax statement gives rise to the following journal entry:

Property Taxes..	xxx	
Property Taxes Payable..............................		xxx
To record the expense and liability for property taxes for the year 19——.		

When payment of the tax is made, Property Taxes Payable is debited.

If the accounts are kept on a monthly basis, it is necessary to charge each month with one twelfth of the actual or estimated amount of the taxes. In the early months of the year, before the tax statement is received, it may be necessary to estimate the amount of tax to be charged. For example, assume that the Thompson Sales Company keeps its records on a monthly basis. It will not receive its tax statement until sometime in March. Based on the tax expense of previous years, it is estimated that the tax for the current year will be $840. In order that the early months will be charged with their prorata share of this expense, the following entry may be made at the end of January and February:

Property Taxes..	70	
Property Taxes Payable................................		70
To record the property tax expense for the month.		

After the February entry has been posted, the property taxes payable account will have a credit balance of $140.

Assume that on March 25 the tax statement is received, showing the total tax to be $840 (exactly as estimated for purposes of this illustration.) Since the liability account already has a balance of $140, only $700 will be added. Inasmuch as this amount is to be prorated over the remaining months of the year, it may be recorded as a deferred charge. Accordingly, the following entry is made:

Mar. 25	Deferred Property Taxes......................	700	
	Property Taxes Payable......................		700
	To record the liability for property taxes for the year. (Total liability, $840; previous accruals, $140.)		

When payments of the tax are made, the liability account is debited

At the end of each month for the rest of the year, the following entry would be made in order to continue the process of charging each month with one twelfth of the total tax expense for the year

Property Taxes	70	
Deferred Property Taxes		70
To record the property tax expense for the month of		

After the entry of December 31 is posted, the deferred property taxes account will have no balance

When the tax statement is received, it may be found that the tax is not exactly the same as was estimated This will mean that the charges for the previous months were incorrect The error is likely to be small If the error is of small consequence, it may be offset by *simply setting up the deferred charge as the difference between the* total tax and the amount already charged to the operations of previous months The charges for succeeding months will be calculated at an amount that will completely absorb the deferred charge by the end of the year In the case illustrated if the tax statement received on March 25 showed the total tax to be $850 instead of $810 as estimated the entry on that date would be for $710 instead of $700 The charge for each of the remaining months would be $71 rather than $70

DELINQUENT TAXES ON PROPERTY PURCHASED Not infrequently property is purchased that is subject to a lien for delinquent property taxes and penalty charges When these amounts are paid by the purchaser, it is proper for him to charge the same asset account as was debited with the purchase price of the property For example assume that on July 1 1919, Edward Tucker purchased a piece of land at a price of $5 000 On July 15, 1919, he paid $455 representing delinquent taxes penalties, and interest for the three previous tax years The entries in general journal form to record these transactions are as follows

July 1	Land	5 000	
	Cash		5 000
	To record purchase of lot at 1821 Main Street		
July 15	Land	455	
	Cash		455
	To record the payment of delinquent taxes on lot at 1821 Main Street		

SPECIAL ASSESSMENTS The owners of land are sometimes subject to special assessments to reimburse the local government for the cost of improvements on or near their property. Examples of this sort include the installation of sewers, the paving of streets, or the laying of curbs and sidewalks. When the assessment is recorded, it is proper to charge it to the land account, as it increases the value of that asset.

NATURE OF SALES TAXES Sales taxes are an important source of revenue for most states and many cities. These taxes are usually imposed upon *retail* sales only; there is no tax when an article is purchased for resale. In some cases certain types of rentals and the sale of services are taxable. The sale of food is sometimes exempt.

The tax is levied as a per cent of all sales except those specifically exempted. The tax imposed by each jurisdiction applies only to sales within its boundaries. In some cases the tax is levied directly upon the seller. It is more usual to find, however, that the law imposes the tax upon the purchaser, but makes it the duty of the seller to collect the tax. Some states require the tax to be paid direct by the purchaser of goods that were bought outside the state.

The laws usually require that the seller must file a sales tax return and pay the tax at the end of each calendar quarter. In some cases this must be done each month. In some states a merchant pays the state in advance by purchasing sales tax stamps. When sales are made, the merchant reimburses himself by collecting the tax. The buyers receive canceled tax stamps as a receipt.

ACCOUNTING FOR SALES TAXES If the sales tax is imposed upon the purchaser but is collectible by the seller, the latter will add the proper amount of sales tax to each taxable transaction. There may be a special sales tax payable column provided in the sales journal to record the tax on charge sales. The laws may not require a merchant to pay the tax until it is collected, but it is usually expedient to record the liability at the time the customer is charged. A sales journal with a special column for sales tax payable is illustrated on the following page.

In the case of sales for cash it is desirable, though not always expedient, to keep a record of the tax collected on each sale. If a sales invoice is prepared for each cash sale, the tax will be shown. If invoices are not prepared for each sale, any of several procedures are followed. Sometimes the amount of the sale and the amount of the

SALES JOURNAL

Date		Sales Inv. No.	Name of Customer	Address	Post Ref.	Accounts Receivable Dr.	Sales Tax Payable Cr.	Sales Cr.
19 –								
June	2	708	D. M. Madison	15 Elm St.	√	15 30	.30	15 00
	2	709	F. J. Dolan	108 South St	√	87 72	1.72	86 00
	2	710	R. S. Andrews	89 E. First	√	168 81	3 31	165 50
	30		Totals			1,457 22 (8)	28 57 (27)	1,428 65 (41)

Sales Journal Showing Sales Taxes

tax are separately rung up on a cash register if the machine has the capacity to accumulate the totals of both these elements separately. Sometimes only the amount of the sale is recorded in the register and placed in the drawer, while the tax cash is placed in a separate box or container. Any of these procedures makes it possible to know the exact amount of sales tax on cash sales collected each day. This amount can be recorded in a special sales tax payable column in the cash receipts journal. An illustration of this form of cash receipts journal follows.

CASH RECEIPTS JOURNAL

Date		Received From	Sales Cr.	Sales Tax Payable Cr.	Cash Dr.
19 –					
June	1	Cash sales	634 10	12 68	646 78
	2	W. B. Oaks			135 46
	2	Cash sales	818 20	16 36	834 56

Cash Receipts Journal Showing Sales Taxes

Some business organizations do not find it expedient to make a record of the tax on each sale. In such cases the credit to the sales account includes the sales tax. At the end of the month the tax element is calculated and a general journal entry is made to remove it from the sales account and record it as a current liability. For example, assume that the tax rate is 2 per cent. The total of sales and sales tax for the month amounts to \$16,520.16. If this amount represents sales plus 2 per cent of sales, the sales are \$15,608 (\$16,520.16 ÷ 1.02)

and the sales tax element is \$912.16 (\$45,608 x .02). The following entry would be made:

Sales......................................	912.16	
Sales Tax Payable............................		912.16
To record the liability for sales tax collected on sales for the month of______.		

A problem arises if not all of the sales of the business are subject to sales tax. This may be the case because certain items are exempted by law or because some of the sales are made to out-of-state or out-of-city customers. This makes it necessary to keep a record that will show both taxable and nontaxable sales. If there are a large number of each kind of transaction, it may be necessary to use memorandum columns in the sales and cash receipts journals to accumulate the information.

When the taxes are paid, an entry is made in the cash disbursements journal debiting Sales Tax Payable. Any balance in the latter account on a balance sheet date is reported as a current liability. Sales taxes legally imposed upon the buyer are not an expense of the seller. The amount shown as gross sales on the profit and loss statement of the seller should not include sales taxes.

SALES TAXES IMPOSED UPON THE SELLER If the law imposes the sales tax upon the seller, the accounting problem is somewhat simplified, since there are no tax collections, as such, to be recorded. However, the records must show the amount of sales that are subject to tax in case some sales are tax exempt. When this is known, the tax can be computed at the end of each month and an entry made to record the expense and the liability. For example, suppose that the tax for the month of April was found to be \$300. The following general journal entry would be necessary:

April 30	Sales Tax Expense..........................	300	
	Sales Tax Payable..........................		300
	To record the sales tax for the month of April		

When the sales tax return is filed and the tax is paid, an entry would be made in the cash payments journal debiting Sales Tax Payable. Any balance in this account on a balance sheet date is reported as a current liability. The sales tax expense account is closed to Profit and Loss Summary at the end of the fiscal period. There is not complete agreement as to where Sales Tax Expense should be shown in the profit and loss statement. Some accountants classify it as an operating expense, often under the heading of selling expenses.

9. On an income of $10,000 the tax is $1,500, while on an income of $50,000 the tax is $7,500. Does this reflect *progressive* tax rates?

10. John Stewart pays his personal income tax with a check drawn on the bank account he keeps for the Stewart Mercantile Company, which he owns. How would this be recorded on the books of the Stewart Mercantile Company?

11. Which of the following are real property and which are personal property:

(a) Land.
(b) Taxpayer's residence.
(c) Merchandise in a store.
(d) Growing trees.
(e) Delivery truck.
(f) Trade-mark.
(g) Accounts receivable.

12. The total assessed value of all the property in a school district is $10,000,000. The district wants to raise $50,000 by the property tax for the current year. What will be the tax rate?

13. Why are the taxes on business property owned by the proprietor and used in an unincorporated business treated as a business expense, while no part of the tax on the income (business profits included) of the owner of the business is so treated?

14. Arthur Bailey must pay $350 to the city on a special assessment for street improvements. If such improvements will tend to increase the value of his land by a similar amount, what entry should be made in his journal to record the payment?

15. All the sales of a store are subject to a state tax of 3% levied upon consumers but collectible by the seller. At the end of one day, the total cash received from sales and tax was found to be $887.86. How much of this was sales and how much was tax?

16. W. D. Greene absorbs a sales tax imposed upon the seller in the price of the goods. He believes that the amount he pays as sales tax should be shown as an operating expense along with real and personal property taxes. His accountant thinks it should be shown as a direct deduction from sales. Which, in your opinion, is the better practice?

PROBLEMS

1. Examination of the records of Mr. and Mrs. R. J. Williams for the calendar year 1949 reveals the following information:

Income — Mr. Williams:

Salary as president of the Williams Corporation $10,512.00
(Gross amount, $12,000; income tax withheld, $1,458; federal old-age benefit tax, $30)

Mr. Paxton has kept a very detailed record of cash receipts and disbursements, but the record includes his personal, as well as his business, transactions. A summary of all receipts and disbursements of cash during 1949 follows:

Receipts	
Loan from finance company (explained above)	$15,000.00
Sales (including sales tax)	20,400.00
Received from sale of Apex Corporation Stock (Stock was purchased April 1 and sold August 1)	3,000.00
Dividend from Apex Corporation	80.00
Prize (won by Mr. Paxton on a radio program)	100.00
Disbursements	
Cost of land	5,000.00
Cost of building	20,000.00
Cost of equipment and fixtures for store	4,000.00
Cost of furniture and furnishings for home	5,000.00
Payments for merchandise purchased	16,000.00
Telephone — in store	150.00
Telephone — in home	60.00
Property taxes (paid in full)	
On land	40.00
On building	160.00
On store equipment and merchandise	30.00
On household possessions	20.00
Sales taxes remitted to state (excluding December taxes)	350.00
Light and heat (50% for store)	190.00
Payments on mortgage principal	1,000.00
Payments on mortgage interest	450.00
Payments on estimated income tax for year	480.00
Insurance (all policies for 3 years — purchased January 1)	
On building	300.00
On store equipment and merchandise	120.00
On household goods	60.00
Donation to church	104.00
Hospital and medical expenses	515.00
Cost of Apex Corporation stock (see receipts)	2,500.00
Miscellaneous personal and household expenses	4,000.00
Miscellaneous store expenses	2,000.00

On December 31, 1949, Mr. Paxton has unpaid bills for merchandise purchases amounting to $1,000. He owes the state $50 for sales taxes collected in December, 1949. Accrued interest on the mortgage note amounts to $420 on December 31, 1949. The inventory of merchandise at the end of the year amounts to $4,800.

Instructions (1) Prepare a profit and loss statement for the Paxton Hardware Company for the year ended December 31, 1949 (Be sure that only business expenses are included Remember that only one half of the building is used for the business)

(2) Prepare a summary of the items that will appear on the income tax return of Mr Paxton Be sure to show the items that comprise adjusted gross income list and total the other deductions, and deduct the exemption credits ($600 each) to arrive at the amount of net income subject to the tax rates

(3) Using the hypothetical rates shown on page 319, calculate the total tax liability of Kenneth Paxton for 1949 How much must be paid when the return is filed?

3 The accounts of the Jones Mercantile Company are kept on a monthly basis In January Mr Jones estimates that the property taxes for the current year will be $480 On April 20 the tax statement is received, showing a tax liability of $462 That amount is paid in full on May 10

Instructions (1) Give all of the entries in general journal form to record matters relative to property taxes for the first six months of the year Include closing entries

(2) What items relative to property taxes would appear in the balance sheet of January 31? of April 30? of May 31? of December 31?

CHAPTER XIX

PARTNERSHIP FORMATION AND OPERATION

THE PARTNERSHIP DEFINED If a sole proprietor deems it advisable, he may ask one or more associates to join him in the development of his business. The new party ordinarily contributes cash or other property. The members of the new association are co-owners of the business and share its profits and losses. In this way a partnership is established. A partnership may also be formed when two or more persons decide to start a new business in which they are co-owners and share in profits and losses.

The Uniform Partnership Act, adopted by a large number of the states, calls the partnership "an association of two or more persons to carry on as co-owners a business for profit." This definition states clearly the nature of a partnership from the legal point of view. The partnership may be better understood from the business point of view by considering the characteristics that distinguish it from other forms of business organization.

CHARACTERISTICS OF THE PARTNERSHIP The fundamental characteristic of a partnership is expressed in the definition given above, in that it is an association of persons. It is distinctly a personal organization, and from that personal aspect the following essential characteristics are derived:

1. *Mutual Agency.* Each partner is the agent of the partnership. For example, one partner can make an agreement to purchase goods or services for the firm, and the other partners will be bound by his act if the goods or the services are such as the business uses or might use in the course of its affairs.

2. *Limited Life.* A partnership, because of its personal nature is short lived. It may be dissolved as the result of any one of a variety of causes. The death, incapacity, or withdrawal of one of the partners *causes a dissolution of the partnership; if a partner sells his interest,* the partnership terminates; if the members admit another partner, the old partnership ends but a new partnership is brought into existence. Partnership reorganization and dissolution are discussed in Chapter XX.

3. *Unlimited Liability.* Each member of a partnership is jointly and individually liable for the debts of the partnership. Therefore

a partner may not only lose what he has invested in the partnership but also be required to use his private property to pay the debts of the partnership if the business becomes insolvent For example if Craig and Long each invest $6 000 in a partnership and through ill luck or poor management the partnership later has liabilities of $12 000 and assets of only $10 000 the creditors may recover the $2 000 excess of the liabilities over the assets from either Craig or Long individually

4 *Co-ownership of Partnership Property* The property invested by a partner in a partnership is no longer his own personal property but is jointly owned by all partners For this reason it is essential that the valuation placed on the contributed property be a fair and just one For example if Brown contributes a building that cost him $10 000 but is now worth $20 000 the value of the building to the partnership is $20 000 After he has made his contribution the partner has only a dollar and cents claim against all the assets of the partnership

5 *Participation in Partnership Profits* Another feature essential to a partnership is the co-ownership of the profits If the profits are shared on any basis other than co-ownership a partnership does not exist For example an employee who is given a percentage of profits as remuneration for his services is not thereby a partner There must be an intention of the partners regarding co-ownership of profits and losses

ACCOUNTING FOR PARTNERSHIPS

Much of the accounting for a partnership is the same as that for a business with any other form of ownership The current transactions completed in the general operation of the business are similar and the accounting process as well as the papers the records and the reports employed is essentially the same The relationships existing between the members of a partnership give rise to transactions that are not common to the sole proprietorship These transactions have to do with the formation the operation and the dissolution of the partnership The operation phase is principally that of participation in partnership profits which will be discussed in this chapter

FORMATION OF A PARTNERSHIP

A partnership is founded upon a voluntary contract having all the essential elements of any other contract Since the interest in the partnership here is primarily from the point of view of accounting the various legal

questions arising from the relationship of the partners will not be discussed at any length.

Disputes, misunderstandings, and difficult situations are liable to arise in a partnership because of the peculiar relationship existing between the partners. To prevent these, or at least to reduce them to a minimum, a written contract should be drawn up. This contract is known as the *articles of copartnership.* In addition to the date and the signatures of the partners, it should contain the following data, as well as any other provisions that may be considered desirable.

1. Name and location of the business.
2. Nature and life of the undertaking.
3. Names of the partners and the amount of the investment of each.
4. Provision for sharing in profits and losses.
5. Rights and duties of each partner.
6. Provision for accounting records.
7. Provision for dissolution.
8. Special provisions and stipulations.

After the partners have reached an agreement and have signed the articles of copartnership, the assets may be acquired and the opening entries may be made in the partnership books. The problems of partnership formation may be classified under two headings:

(1) Original formation of partnership by:
 (a) Adding a new member or new members to a sole proprietorship.
 (b) Cash or property contributions by members to set up a new business.

(2) Modification in personnel of a going partnership by:
 (a) Selling an interest to a new partner or partners.
 (b) Accepting an investment from a new partner or new partners.

The accounting procedures for the first group are treated in this chapter; for the second group, in Chapter XX.

OPENING ENTRIES FOR A PARTNERSHIP — INVESTMENT OF CASH A brief reference to the articles of copartnership may be given in the general journal before the entries to record the investments of the partners are made. For example, when E. T. Davis and C. G. Crane form a partnership by the investment of cash, the following memorandum entry is made in the general journal:

> July 2 E. T. Davis and C. G. Crane formed a partnership for the purpose of conducting a retail hardware business in accordance with the articles of copartnership signed this day in duplicate.

Since the partners in this case are investing only cash, the record of the cash investment will appear in the cash receipts journal. Such an entry is shown on the following page.

CASH RECEIPTS JOURNAL

DATE		ACCOUNT CREDITED	EXPLANATION	POST REF	GENERAL CR	SALES CR	ACCOUNTS REC. CR	SALES DISC. DR	CASH DR
July	2	E T Davis Capital	Investment		5 000				5 000
	2	C G Crane Capital	Investment		5 000				5 000

OPENING ENTRIES FOR A PARTNERSHIP — TRANSFER OF ASSETS AND LIABILITIES If the partners invest assets in addition to cash and transfer liabilities to the partnership either of two methods may be used in recording the investment (1) An entry may be made in the cash receipts journal to record the cash investment and another may be made in the general journal to record the other assets and the liabilities or (2) the entire investment may be recorded in the general journal and the cash investment may be recorded in the cash receipts journal In the latter case the cash items will be checked in both the general journal and the cash receipts journal so that they will not be posted twice

2	Cash	√ 3,000	
	Notes Receivable	750	
	Accounts Receivable	6,000	
	Merchandise Inventory	7,500	
	Office Equipment	1,500	
	Building	4,500	
	Land	3,000	
	Accounts Payable		8,250
	James Hill, Capital		18,000
	To record the investment of James Hill.		

The cashbook entries to record the cash invested by Fuller and Hill are as follows:

CASH RECEIPTS

Date		Account Credited	Explanation	Post Ref.	General Cr.	Sales Cr.	Accounts Rec. Cr.	Sales Disc. Dr.	Cash Dr.
Jan.	2	Roy Fuller, Capital	Investment	√	1,500				1,500
	2	James Hill, Capital	Investment	√	3,000				3,000

It should be understood that the amounts shown in the foregoing journal entries were those agreed upon by the two partners at the time they set up the partnership. For example, the $4,500 figure for store equipment and the $1,500 figure for office equipment were estimates of present market value established by mutual consent of the partners. Although the book value of assets contributed to a partnership may influence the values at which they are taken over, the values recorded on the books of the new partnership may be quite different from the values at which the assets were carried on the books of their former owners.

Fixed assets are ordinarily recorded on the books of the new partnership at the value assigned to them in the partnership agreement. No effort is made to show in the books the original cost value and the past depreciation. Future depreciation is based on the cost of the assets to the new partnership.

In the case of partner Hill, the land may have cost him $1,500 when he acquired it several years before. The building may have cost $6,000 and may have been depreciated to a book value of $3,000. Because of increases in land values and building costs, the only fair course was to establish new values of $3,000 for the land and $4,500 for the building, increases of 100 per cent over the original cost of the land and 50 per cent over the present book value of the building.

PERSONAL ACCOUNTS OF THE PARTNERS The articles of copartnership may provide that each partner will be permitted to withdraw cash at intervals during the course of operations. If this is the case, the withdrawals are debited to the partners' personal accounts. A partner's personal account is in nature the same as the personal account of a sole proprietor. At the end of the fiscal period the partner's share of the profit or the loss is closed into his personal account. The debit or the credit balance of the personal account is permitted to remain in that account or is transferred to the capital account, the procedure depending upon the partners' agreement.

For example, at the end of the first fiscal year the personal accounts of Fuller and Hill have debit balances of $7,500 and $3,000 respectively. If the profit for the year, $14,400, is to be distributed equally, the entry to close the profit and loss summary account will consist of a debit of $14,400 to Profit and Loss Summary and a credit of $7,200 to each of the partners' personal accounts.

Fuller's personal account will now have a debit balance of $300, Hill's personal account a credit balance of $4,200. These balances may be permitted to remain in the personal accounts, or they may be closed into the partners' capital accounts, reducing the capital of Fuller and increasing the capital of Hill.

DIVISION OF PROFITS The distribution of profits or losses frequently presents one of the most difficult problems in partnership accounting. If the partners have no agreement in this respect, the law provides that profits or losses should be divided equally, regardless of the amounts of the investments. The partners may, however, make any agreement they wish in regard to the division of profits or losses. The agreement should be quite specific so that misunderstandings will be avoided.

Partnership profits include a return for partners' services, for partners' capital investments, and economic or pure profit. Since the partnership is a personal organization, the services of the partners come free of cost to the partnership. In the absence of a specific agreement, the partners receive no salaries. The capital contributions of partners do not bear interest. Profits must therefore be interpreted to include these two factors as well as pure profits.

If the service and capital contributions of partners are equal, an equal sharing in partnership profits is equitable. But if one partner contributes three times as much capital as the other, the distribution of profits should take into account the unequal contribution of capital.

Or, if the services of one partner are much more valuable to the partnership than those of the other, provision for unequal service contribution should be made in profit participation.

Arising out of the recognition of these three factors in partnership profits, many methods of distributing profits or losses are employed. Fundamentally, these methods give effect to the three elements found in partnership profits.

PROFITS DISTRIBUTED ON FIXED RATIO The simplest formula for profit sharing is agreement in advance on a fixed ratio that will continue for the life of the partnership. This fixed ratio may provide for an equal sharing on the assumption that partners' contributions of capital, services, and risk entitle them to such a sharing. It may give one partner two thirds and the other partner one third for similar reasons. Or it may provide any fractional participation that seems fair to all the partners.

When profits are distributed on a fixed ratio, the problem is simple. After the profit for a fiscal period has been determined, it is divided according to this fixed ratio, the profit and loss summary account being debited and the partners' personal accounts being credited. The table below shows the participation of Fuller and Hill in a partnership profit of $14,400 using three different fixed ratios:

Fixed Ratio			Fuller's Share	Hill's Share
(1)	½	½	$7,200	$7,200
(2)	⅓	⅔	4,800	9,600
(3)	¼	¾	3,600	10,800

The journal entry on December 31 to record the distribution of the profit under the third fixed ratio above would be as follows:

Dec. 31	Profit and Loss Summary	14,400	
	Roy Fuller, Personal		3,600
	James Hill, Personal		10,800
	To distribute the net profit for the year to the personal accounts on the ¼:¾ fixed ratio.		

PROFITS DISTRIBUTED WITH EMPHASIS ON INVESTMENTS If the investments of partners are to be given separate consideration in profit sharing, there is a choice between two commonly used methods. In the first method participation of partners in profits is based solely on their capital investments; in the second method an interest return is allowed on capital investments and the balance is distributed according to the fixed-ratio method. Each of these two methods that emphasize capital contributions will be described.

According to Investments — Opening Capital The profits may be divided according to the beginning investments For example if Fuller and Hill had agreed to divide profits or losses on the basis of their original investments their respective shares of the profit for the first year would have been computed in the following manner

Roy Fuller Investment of January 2		$12 000 00
James Hill Investment of January 2		18 000 00
Total Investment		$30 000 00
Roy Fuller Profit December 31	$\frac{12\,000}{30\,000} \times \$14\,400\ 00 =$	$ 5 760
James Hill Profit December 31	$\frac{18\,000}{30\,000} \times \$14\,400\ 00 =$	8 640
Total Profit		$14 400

The journal entry to record this division of the profit would have been

Dec 31	Profit and Loss Summary	14 400	
	Roy Fuller Personal		5 760
	James Hill Personal		8 640
	To distribute the net profit for the year in accordance with opening capital investments of $12 000 and $18 000 respectively		

According to Investments — Average Capital When profits are to be divided according to the investments the simplest method of computing the amounts to be transferred to the personal accounts is to use as the basis the investments that the partners made at the beginning of the partnership This method however, assumes that no significant changes in capital investments of partners have been made during the fiscal period If the partnership is such that the capital accounts of partners change materially during the fiscal period provision should be made to determine the *average capital* and to divide profit accordingly *The calculation of the average capital is based* upon the capital accounts of the partners A simple method of calculation is described in the following paragraph

The beginning investment is multiplied by the number of months from the time of the investment to the time when there was a change in the investment The investment on the latter date is then multiplied by the number of months from that date until the time when another change occurred This procedure is continued for the entire fiscal period These amounts are totaled The results then express capital investments in the same unit that is month-dollars. This unit takes into account the time factor as well as the amount factor Each part-

ner's participation in the profits is determined by the ratio obtained by placing his total month-dollars over the total month-dollars of the partnership. This is the share of the profit to be assigned to the partner.

Any unit of time may be used in determining the average capital. Days or weeks, instead of months, can be used if significant capital changes occur at other than month periods. In such cases the units would be day-dollars or week-dollars.

For example, Fuller and Hill might have decided to divide their profits of $14,400 according to the average capital as shown by their capital accounts. Their original investments, additions to capital, and withdrawals from capital might have appeared as follows in their capital accounts at the end of the year:

ROY FULLER, CAPITAL

May	1		C	11	3,000	Jan.	2		J	1	12,000

JAMES HILL, CAPITAL

						Jan.	2		J	1	18,000
						May	1		C	11	3,000

The division of the profit for the year ($14,400) would have been determined in the following manner:

ROY FULLER

From January 1 to April 30....	$12,000 × 4 months =	48,000 month-dollars
From May 1 to December 31.	9,000 × 8 months =	72,000 month-dollars
Total....................................		120,000 month-dollars

JAMES HILL

From January 1 to April 30....	$18,000 × 4 months =	72,000 month-dollars
From May 1 to December 31.	21,000 × 8 months =	168,000 month-dollars
Total....................................		240,000 month-dollars

The total month-dollars during the year was therefore 360,000 (120,000 + 240,000).

DISTRIBUTION OF PROFIT

Roy Fuller: $\frac{120,000}{360,000} \times \$14,400 = \$\ 4,800$

James Hill: $\frac{240,000}{360,000} \times \$14,400 = \$\ 9,600$

Profit for the year............$14,400

The following journal entry would then have been made:

Dec. 31	Profit and Loss Summary	14,400	
	Roy Fuller, Personal		4,800
	James Hill, Personal		9,600
	To distribute the net profit for the year in accordance with average capital		

PROFITS DISTRIBUTED CONSIDERING INVESTMENTS AND SERVICES OF PARTNERS

The articles of copartnership often provide that each partner is to receive a *salary* for his services. If the salaries are paid at regular intervals in fixed amounts, in the same manner as salaries of employees, the partners' personal accounts should be debited for such amounts. At the end of the fiscal period the amounts that the partnership agreement allows as salaries are debited to the profit and loss summary account and credited to the partners' personal accounts. The balance of the profit and loss summary account is then distributed in the ratio agreed upon by the partners.

Assume that Fuller and Hill agreed to divide profits equally after salaries of $300 and $450 a month, respectively, had been allowed. When the partners withdrew their salaries in cash each month, their personal accounts were debited and the cash account was credited. At the end of the year the following journal entry was made:

Dec. 31	Profit and Loss Summary	9,000	
	Roy Fuller, Personal		*3,600*
	James Hill, Personal		5,400
	To transfer from the profit and loss summary account to the partners' personal accounts an amount that is equal to the amounts allowed the partners as salaries		

The total of the salaries, $9,000, was then deducted from the net profit, $14,400, and the remainder, $5,400, was distributed equally.

Dec. 31	Profit and Loss Summary	5,400	
	Roy Fuller, Personal		2,700
	James Hill, Personal		2,700
	To distribute the balance of the net profit equally to the partners		

net profit to be divided equally. The journal entries at the end of the year would then have been:

Dec. 31	Profit and Loss Summary	9,000	
	Roy Fuller, Personal		3,600
	James Hill, Personal		5,400
	To transfer from the profit and loss summary account to the partners' personal accounts an amount that is equal to the amounts allowed the partners as salaries.		
31	Profit and Loss Summary	1,800	
	Roy Fuller, Personal		720
	James Hill, Personal		1,080
	To record the interest allowed on the original investments of the partners.		
31	Profit and Loss Summary	3,600	
	Roy Fuller, Personal		1,800
	James Hill, Personal		1,800
	To distribute the balance of the net profit for the period equally to the partners.		

When the partnership agreement states, without qualification, that salaries and interest are to be allowed, the entries for salaries and interest, similar to those in the last example, must be made regardless of the fact that the profit for the period may be less than the total of the salaries and the interest or that a loss may have resulted from operations. After the entries for salaries and interest have been posted, the debit balance of the profit and loss summary account will be transferred to the partners' personal accounts on the basis of the fixed ratio.

If the salaries of Fuller and Hill had been \$600 and \$750 a month, respectively, the following journal entries would have been made at the end of the year:

Dec. 31	Profit and Loss Summary	16,200	
	Roy Fuller, Personal		7,200
	James Hill, Personal		9,000
	To transfer from the profit and loss summary account to the partners' personal accounts an amount that is equal to the amounts allowed the partners as salaries.		
31	Profit and Loss Summary	1,800	
	Roy Fuller, Personal		720
	James Hill, Personal		1,080
	To record the interest allowed on the original investments of the partners.		

31 Roy Fuller Personal	1,800	
James Hill Personal	1,800	
Profit and Loss Summary		3,600
To close the debit balance of the profit and loss summary account into the partners' personal accounts		

The net effect of this series of three entries would have been a credit of $6,120 to Fuller's personal account and a credit of $8,280 to Hill's personal account, a total of $14,400, the net profit of the partnership.

PARTNERS' PROFITS AND FEDERAL INCOME TAX

As stated in Chapter XVIII, partnerships do not pay income tax. The several partners report their shares of the partnership profits on their individual income tax returns and include them in the income total on which they pay tax. For example, Roy Fuller would report $6,120 and James Hill $8,280 of the partnership profits of $14,400 shown above.

It should be noted that partners report and pay income taxes on their shares of the partnership profits and not on the amount they draw out of the partnership. Even though the entire amount of the partnership profits is left in the partnership, the taxable amounts would be the profit participation figures.

Partnerships are required to make out income tax returns showing the amount of the partnership profits and the share of each partner. These partnership returns provide the detail supporting the partnership profits shown on the individual returns of the partners.

Net Profit		$14,400
Distribution of Net Profit to Partners:		
Roy Fuller:		
Salary at $600 a month	$7,200	
Interest at 6% on original investment	720	
	$7,920	
Less: One-half share of remaining debit balance	1,800	
Profit of Roy Fuller		$ 6,120
James Hill:		
Salary at $750 a month	$ 9,000	
Interest at 6% on original investment	1,080	
	$10,080	
Less: One-half share of remaining debit balance	1,800	
Profit of James Hill		8,280
Net Profit for the Year		$14,400

Partnership Distribution of Profit on the Profit and Loss Statement

of the partners' capital accounts. It is of value to the partners because it shows in detail the reasons for the changes in the proprietorship.

If, during the year, Fuller withdrew $3,500 and Hill withdrew $5,000, a statement of the capital accounts might be prepared in the following form:

FULLER AND HILL
STATEMENT OF PARTNERS' CAPITAL ACCOUNTS
FOR YEAR ENDED DECEMBER 31, 1950

	ROY FULLER		JAMES HILL	
	PERSONAL	CAPITAL	PERSONAL	CAPITAL
Capital, January 2, 1950		12,000		18,000
Share of Profit for Year	6,120		8,280	
Less Personal Drawings	3,500		5,000	
Net Addition		2,620		3,280
Capital, Dec. 31, 1950		14,620		21,280

Statement of Partners' Capital Accounts

The proprietorship section of the balance sheet would show the net investments of the two partners in the following manner:

PROPRIETORSHIP

Roy Fuller, Capital	$14,620	
James Hill, Capital	21,280	
Total Proprietorship		$35,900

QUESTIONS

1. Which of the following sentences are true? Which are false?
   (a) The sale of a partnership asset by a junior partner may be revoked by a senior partner.
   (b) In a partnership the eldest son succeeds to the position of his father.
   (c) In a 40 – 60 partnership the obligation of the 40 partner is 40% of the deficiency due creditors.
   (d) A profit of $5,000 made on the sale of a building and lot contributed by partner A belongs to partner A.
   (e) In a 2/3 – 1/3 partnership, in the absence of a written statement as to how profits will be shared, a $6,000 profit would be distributed $4,000 and $2,000.

6. Young, Cox, and Russell are partners in an enterprise. At the close of the six-month period ending June 30, 19--, their capital accounts show credit balances of $10,000, $15,000, and $20,000, respectively. Their drawing accounts show debit balances of $2,000, $1,000, and $2,500. No entries have been made for salaries allowed at the rate of $250 a month for Young, $200 a month for Cox, and $400 a month for Russell. The partners are allowed interest at the rate of 8% per annum on invested capital. Profits or losses after salaries and interest are divided equally. The profit and loss summary account shows a credit balance of $9,000. Give the closing journal entries.

PROBLEMS

1. The capital accounts of A, B, and C, partners, show balances of $10,000, $20,000, and $30,000 respectively. The partnership agreement provides that each partner shall receive 5% interest on invested capital, that A is to receive a salary of $5,000, and that the remaining profits are to be distributed equally.

Instructions: (1) Prepare journal entries at the end of the year to close the balance in the profit and loss summary account to the partners' personal accounts if the:

(a) Profit is $14,000.
(b) Profit is $5,000.
(c) Loss is $1,000.

(2) Prepare a summary comparing the partners' shares in the profit or loss under the three conditions illustrated above.

2. In contemplating the formation of a partnership, B. Jackson and P. Harris discussed the division of profits. Jackson was to invest $11,000; Harris, $1,000. Jackson agreed to devote one half of his time to the business; Harris, full time.

(a) Jackson proposed that the profits be divided according to the original capital investments.
(b) Harris felt that profits should be divided in the ratio of time devoted to business; namely, one third to Jackson and two thirds to himself.
(c) Jackson then suggested that profits be divided equally in order to offset his larger capital investment against Harris' devoting his full time to the business.
(d) Harris finally recommended that annual salaries should be allowed — $5,000 to Harris and $2,500 to Jackson — and that the remaining profit or loss should be divided equally.
(e) An accountant who was consulted recommended that plan (d) be followed but that, in addition, each partner should be allowed 6% interest on his original capital investment.

Instructions: (1) Assuming a profit of $12,000, prepare a summary comparing the partners' shares in the profit or loss under the five conditions mentioned above.

CHAPTER XX

PARTNERSHIP REORGANIZATION AND DISSOLUTION

ADMISSION OF A NEW PARTNER The admission of a new partner to a going partnership must be made with the consent of all the other partners in the business. Furthermore, new articles of copartnership that include the future profit-and-loss ratio for the partners, as well as all other necessary provisions applicable to the undertaking, must be drawn. A new partner may be admitted to a partnership as the result of (a) the purchase of an interest in the proprietorship or (b) an additional investment in the partnership. When an interest in the partnership is purchased, the proprietorship of the new partner is obtained from one or more of the old partners. When an interest is obtained through an investment, the total assets of the firm are increased by the property invested by the new partner.

ADMISSION OF A PARTNER BY THE PURCHASE OF AN INTEREST When a share of the proprietorship in a partnership is sold, the assets and the liabilities of the firm remain unchanged. The amount received for the new partner's interest in the proprietorship is not recorded on the partnership books. The chief result of the transaction is a transfer of a part of the proprietorship to the new partner. Whatever interest the new partner acquires must come from the capital of the selling partner or partners. For example, John Irwin and Henry Vester are partners, each having a proprietorship of $20,000. They sell to George Malden a one-fourth, or $10,000, interest in the partnership. The amount of this new interest is to represent equal reductions in the capital accounts of the old partners. Since the two old partners, instead of the partnership, receive the payment made by Malden, the only entry required in the books of the firm is:

Feb. 1	John Irwin, Capital....................	5,000	
	Henry Vester, Capital....................	5,000	
	George Malden, Capital...............		10,000
	To record the sale of a one-fourth interest to George Malden.		

This entry does not record the amount paid by Malden to the two partners for the one-fourth interest. If the partnership had been very profitable and Malden had been very desirous of obtaining the interest, he might have paid considerably more than $10,000 to the two partners. Or if the two partners had been eager to add Malden to the partnership,

they might have sold him the interest for less than $10 000 The price paid by Malden to Irwin and Vester is a private transaction not entered on the partnership records

ADMISSION OF A PARTNER BY AN INVESTMENT A new partner may be admitted into the partnership by making an investment. In this case the new partner does not buy an interest from the other partners, he makes a new contribution to the business and the proprietorship is thereby increased For example, C R Albers and O M Kemper are partners each having a proprietary interest of $8 000 On October 1, J K Payne invests $4 000 in cash in the business For this investment he is to receive a proprietorship in the business equal to his investment The entry in general journal form to record this transaction is

BONUS OR ALLOWANCE FOR GOODWILL TO FORMER PARTNERS The value of a going partnership concern may exceed the book value of the proprietorship. Under such conditions a new partner would need to invest more than the amount of the partnership interest he is to receive. The surplus investment of the new partner may be credited to the old partners, as explained in case (1) below; or it may cause the recording of goodwill as explained in case (2). The method used will depend upon the agreement among the parties.

(1) *Recording a Bonus.* For example, R. B. Clark and A. O. Rust form a partnership, each investing $6.000 in cash. After a few years the firm of Clark and Rust becomes quite prosperous. A sufficient amount of the profits has been added to the partners' capital accounts to make the credit balance of each $13,500. William Keane wishes to join the partnership and is willing to invest $15,000 in cash and to accept a one-fourth interest for this amount, although his investment is greater than that of either of the other two partners. After the new investment of $15,000 is added to the old proprietorship of $27,000, the new proprietorship will total $42.000. A one-fourth interest in a $42,000 proprietorship is $10.500. Since Keane is investing $15,000 in cash for a $10,500 interest, he is, in effect, paying the old partners a bonus of $4.500 to become a member. The entry in general journal form made upon the admission of Keane on January 2 is:

Jan. 2	Cash....................................	15,000	
	William Keane, Capital...............		10,500
	R. B. Clark, Capital..................		2,250
	A. O. Rust, Capital...................		2,250
	To record the admission of William Keane as a partner upon the investment of $15,000 in cash.		

The capital account of Clark and that of Rust are credited with one half of the bonus, for the partners share equally in profits and losses. If, for example, the articles of copartnership of Clark and Rust had stated a fixed profit-and-loss ratio of 60 per cent for Clark and 40 per cent for Rust, the excess contribution of Keane would have been divided as follows: Clark, $2,700; Rust, $1.800. The bonus received is always divided among the former partners in the profit-and-loss ratio that was used before the admission of the new partner.

(2) *Recording Goodwill.* The preceding entry records the transaction satisfactorily, but Keane may object to having his capital shown as $10,500 when he has actually invested $15.000. He is, however, satisfied with a one-fourth interest in the firm. An alternate method of recording the investment will avoid this objection.

It can be seen that since Keane is willing to invest $15,000 for a one-fourth interest, the value placed on the partnership is $60,000, that is, four times his investment. The value of the partnership without the additional investment is therefore $45,000, which is $18,000 in excess of the proprietorship shown by the partnership accounts. If Keane is willing to invest $15,000 for a one-fourth interest, the firm must possess certain rights, privileges, or advantages that are of great value. Such rights, privileges, or advantages are assets; but they are different from the other assets in that they are not tangible and ordinarily have value to the business only as a going concern. They are therefore called *intangible assets* and are shown on the balance sheet under this heading. The most common in this classification is *goodwill*. Goodwill has been defined by the Treasury Department of the United States Government as "the value attached to a business over and above the value of the physical property." Goodwill arises when a business wins the favor of its customers to such an extent that the customers will probably return to trade in the future.

It is not considered desirable to record goodwill as an asset unless it has been purchased or sold. In the example used previously, Keane is willing to invest $15,000 for a one-fourth interest in a partnership having a capital of $27,000. In this case it is permissible to record the asset goodwill at an amount sufficient to increase the capital of the former partners so that the investment of $15,000 made by Keane will represent one fourth of the total proprietorship. The combined capital of the two former partners must therefore be increased from $27,000 to $45,000. The amount of the increase, $18,000, represents the value of the goodwill. Goodwill is set up as an asset, and its value is divided between the former partners in the ratio in which they previously shared profits and losses. Since Clark and Rust share profits and losses equally, the entries in general journal form made in the books of the new partnership upon the admission of Keane are:

DETERMINING THE AMOUNT OF GOODWILL When goodwill exists in a going business and becomes an item in the investment of a new partner, there should be a recognized procedure for determining its amount. Various ways of measuring the amount of goodwill exist. Two methods will be mentioned. (1) The value of goodwill may be estimated by the capitalization of the excess profits. For instance, if the capital of a business is \$50,000, a yearly return of 10 per cent, or \$5,000, may be normal. If the average yearly profit, however, is \$7,000, \$2,000 represents the excess profit. The goodwill may be determined by capitalizing the \$2,000 excess profit; that is, by dividing \$2,000 by 10 per cent, the normal rate of profit. The result, \$20,000, is the estimated value of the goodwill. In other words, the investment in this business might be \$70,000, and still a 10 per cent return would be made on the capital. (2) The value of goodwill may be estimated to be equal to the excess profit of several years. If an excess yearly profit of \$2,000 is expected for at least the next five years, the goodwill may be estimated at \$10,000 (5 times \$2,000).

BONUS OR ALLOWANCE FOR GOODWILL TO NEW PARTNER In some cases the capital account of a new partner may be credited with an amount in excess of his investment. Either of two methods is commonly used when a partner is admitted on such a basis. The method to be used will depend upon the agreement among the parties.

(1) *Recording a Bonus.* Suppose that A. B. Arnold and C. D. Harris are partners with proprietary interests of \$10,000 and \$15,000 respectively. The firm needs additional capital and the services of W. R. Kroger, an expert in its type of business. The two partners therefore offer Kroger a one-third interest in the partnership if he will invest \$8,000 in cash. If the capital account of Kroger is credited for the amount of his investment, \$8,000, the total proprietorship will be \$33,000. The books should show, however, that his share is one third. Therefore, the partners allow him a bonus of \$3,000, which is transferred from their capital accounts in the profit-and-loss ratio. Kroger then has a one-third, or \$11,000, interest in the total proprietorship of \$33,000. Since Arnold and Harris formerly shared profits and losses equally, the entries in general journal form made upon the admission of the new partner are:

Nov. 1	Cash	8,000	
	W. R. Kroger, Capital		8,000
	To record the cash investment of Kroger.		

Nov	1	A B Arnold Capital	1 500	
		C D Harris Capital	1 500	
		W R Kroger Capital		3 000
		To adjust the capital accounts so that the account of Kroger will show his one third interest in the partnership		

This method decreases the proprietorship of the two original partners It is assumed however that the investment of Kroger and the service that this partner will render to the firm will in the long run more than offset the present disadvantage

(2) *Recording Goodwill* The partners may not wish to have their capital reduced Since the admission of Kroger is expected to react favorably on the firm the old partners may prefer to set up goodwill and to credit the capital account of the new partner with an amount that will increase his proprietary interest to one third of the total capital As the combined capital of the two former partners is $25 000 which represents two thirds of the proprietorship of the new partnership the capital account of Kroger must have a credit balance of $12 500 Since Kroger invests $8 000 the goodwill account is debited for $4 500 and his capital account is credited for the same amount The entries in general journal form made in the books of the new partnership upon the admission of Kroger are

Nov	1	Cash	8 000	
		W R Kroger Capital		8 000
		To record the cash investment of Kroger		
	1	Goodwill	4 500	
		W R Kroger Capital		4 500
		To record the asset goodwill and thus to increase the capital of Kroger to one third of the total proprietorship		

REVALUATION OF ASSETS ON CONSOLIDATION When two businesses are consolidated an examination of the assets may show that certain assets are recorded on the books at more or less than their real values Before any entries are made in the books of the new organization the records of each business that is being consolidated should be made to show the actual values of the assets according to the partnership agreement

For example the sole proprietorship conducted by Carl Walsh and the partnership of Snyder and Fisher are to be consolidated Upon an examination of the assets of Walsh it is found that an additional

allowance of $300 for bad debts should be established and that the present value of the merchandise inventory is $450 more than the book value. Upon an examination of the assets of Snyder and Fisher, it is found that the building has a present market value of $5,000, which is $1,000 above the book value.

The entry made on the books of Walsh to record the revaluation of his assets is shown below:

July 31	Merchandise Inventory	450	
	Reserve for Bad Debts		300
	Carl Walsh, Capital		150
	To adjust the reserve for bad debts and the merchandise inventory so that their real values will be recorded.		

The entry made on the books of Snyder and Fisher to adjust the value of their building is as follows. (The journal entry is based on the assumption that profits and losses are shared equally by the partners.)

July 31	Building	1,000	
	Frank Snyder, Capital		500
	Robert Fisher, Capital		500
	To adjust the building amount, which has been too low.		

After these correcting entries have been made and posted, the opening entries of the partnership, based on the new values, are made in the usual manner.

EFFECT OF DISSOLUTION UPON A PARTNERSHIP Dissolution terminates the agreement that gave the partnership existence, but it does not necessarily mean the discontinuance of the business. The admission of a new partner or the consolidation of the partnership with another firm is an act of dissolution. The partnership agreement is void; but new articles of copartnership may be provided to define the altered relationship between the partners, and the business may continue without interruption. Frequently, however, a partnership may wind up its affairs after dissolution and go out of existence. Some of the problems that may arise upon the dissolution of a partnership will now be discussed.

RETIREMENT OF A PARTNER When a member retires from a partnership, his interest may be purchased by one of the other partners. The entry required in such a case is a debit to the proprietorship account of the one who is retiring and a credit to the proprietorship account of the other partner. This entry is made regard-

less of the amount paid for the interest of the retiring partner, since the payment represents a transaction between two individuals and consequently does not affect the records of the partnership

If upon retirement a partner withdraws assets of the business the assets may be (1) equal in value to his proprietorship (2) greater in value than his proprietorship or (3) less in value than his proprietorship

If the assets are equal to his proprietorship it is necessary only to debit his proprietorship account and to credit the accounts with the assets

If because of the unusually prosperous condition of the firm or for any other reason the retiring partner is given assets greater in value than the book value of his proprietorship the total proprietorship of the other partners is decreased For example Gilbert Nurre and Hunt are equal partners in a business having a total proprietorship of $45 000 Nurre wishes to withdraw from the partnership but the business has been so unusually prosperous that he is not willing to give up his interest for $15 000 its book value The partners agree to permit him to withdraw $18 000 as his share of the business The entry in general journal form on May 31 to record this withdrawal is

May 31	Frank Nurre Capital	15 000	
	John Gilbert Capital	1 500	
	Peter Hunt Capital	1 500	
	Cash		18 000
	To record the withdrawal of Nurre who was allowed $18 000 for his interest in the business		

Under certain circumstances a partner may be willing to withdraw from a partnership and to accept assets of less worth than the book value of his interest Dillon Rowe and Wallace are equal partners in a business having a net proprietorship of $27 000 Rowe is anxious to withdraw but he realizes that if he forces a sale the assets will not bring their book value He is therefore willing to accept $8 000 in cash which is $1 000 less than the book value of his interest The entry in general journal form to record the withdrawal is

Aug 31	C R Rowe Capital	9 000	
	Cash		8 000
	H P Dillon Capital		500
	R F Wallace Capital		500
	To record the withdrawal of Rowe who was allowed $8 000 for his interest in the business		

DEATH OF A PARTNER Since the death of a partner automatically dissolves the partnership, the books should be closed immediately and the profit or the loss since the last closing date should be determined and distributed in accordance with the partnership agreement. The balance of the capital account of the deceased may then be transferred to a liability account with the estate. The surviving partners may draw up new articles of copartnership and either continue in the business by themselves or admit a new partner.

LIQUIDATION OF A PARTNERSHIP When a partnership is to cease operation and liquidation is to take place, it is necessary first to ascertain the net profit or the net loss to date and to distribute it to the partners' accounts so that the net proprietorship of each partner will be shown. It is necessary then to convert the assets into cash. When cash has been realized, it is applied in the following manner:

1. To pay creditors.
2. To return the capital belonging to the partners.

The process of liquidation is illustrated by the following example. Read, Howard, and Hurley are partners who divide profits in the ratio of 50 per cent, 30 per cent, and 20 per cent respectively. They decide to dissolve the partnership on June 30. The books are closed preparatory to liquidation, and a balance sheet is prepared. A condensed form of the report is shown below:

READ, HOWARD, AND HURLEY
BALANCE SHEET
JUNE 30, 1950

Assets.	32,000	Liabilities. . . .	2,000
		Proprietorship:	
		R. S. Read, Capital. . . .	10,000
		O. A. Howard, Capital.	10,000
		P. M. Hurley, Capital. .	10,000
Total Assets.	32,000	Total Liab. and Prop. . . .	32,000

The assets are sold for $42,000; the profit on the sale of the assets is distributed in the profit-and-loss ratio; the liabilities are paid; and the remainder of the cash is then distributed according to the investments of the partners.

The entries in general journal form on June 30 to record these transactions are

June 30	Cash	42,000	
	Assets		32,000
	Loss and Gain on Sale of Assets		10,000
	To record the sale of the assets		
30	Loss and Gain on Sale of Assets	10,000	
	R S Read, Capital		5,000
	O A Howard, Capital		3,000
	P M Hurley, Capital		2,000
	To distribute the profit from the sale of the assets to the partners' capital accounts in the profit and loss ratio		
30	Liabilities	2,000	
	Cash		2,000
	To record the payment of the liabilities		
30	R S Read Capital	15,000	
	O A Howard, Capital	13,000	
	P M Hurley, Capital	12,000	
	Cash		40,000
	To distribute the remaining cash according to the balance of the partners' capital accounts		

If a loss had resulted from the sale of the assets, it would have been divided among the partners in the profit-and-loss ratio before any payment was made to the partners on their investment

For instance, assume that the assets of Read, Howard, and Hurley are sold for only $22,000 The entries in general journal form are shown below

June 30	Cash	22,000	
	Loss and Gain on Sale of Assets	10 000	
	Assets		32,000
	To record the sale of the assets		
30	R S Read, Capital	5,000	
	O A Howard, Capital	3,000	
	P M Hurley, Capital	2,000	
	Loss and Gain on Sale of Assets		10,000
	To distribute the loss on the sale of the assets to the partners' capital accounts in the profit-and-loss ratio		
30	Liabilities	2,000	
	Cash		2,000
	To record the payment of the liabilities		

30	R. S. Read, Capital	5,000	
	O. A. Howard, Capital	7,000	
	P. M. Hurley, Capital	8,000	
	Cash		20,000
	To distribute the remaining cash according to the balances of the partners' capital accounts.		

The part of a loss charged to the capital account of a partner may sometimes be greater than the partner's investment. The debit balance of the capital account will therefore represent an amount owed to the other partners. The remaining cash will not be sufficient, however, to pay the other partners until the partner whose account has a debit balance pays the amount that he owes. In this case cash should be distributed in such a manner that, if the partner is unable to pay, the others will bear this additional loss in the profit-and-loss ratio that exists between themselves. To illustrate, assume that the assets of Read, Howard, and Hurley realize only $7,000. The entries in general journal form are as follows:

June 30	Cash	7,000	
	Loss and Gain on Sale of Assets	25,000	
	Assets		32,000
	To record the sale of the assets.		
30	R. S. Read, Capital	12,500	
	O. A. Howard, Capital	7,500	
	P. M. Hurley, Capital	5,000	
	Loss and Gain on Sale of Assets		25,000
	To distribute the loss on the sale of the assets to the partners' capital accounts in the profit-and-loss ratio.		
30	Liabilities	2,000	
	Cash		2,000
	To record the payment of the liabilities.		
30	O. A. Howard, Capital	1,000	
	P. M. Hurley, Capital	4,000	
	Cash		5,000
	To distribute the remaining cash to Howard and Hurley so that the balance in their accounts will be in the profit-and-loss ratio of 3/5 and 2/5.		

Before the last journal entry was made, the capital accounts of the partners had the following balances: R. S. Read, $2,500 (debit); O. A. Howard, $2,500 (credit); and P. M. Hurley, $5,000 (credit).

Only \$5,000 in cash was available for distribution to Howard and Hurley, whose net capital totaled \$7,500; but \$2,500 was due from Read. Howard and Hurley considered Read's debt to the partnership as a possible loss and divided it among themselves on the basis of their profit-and-loss ratio of 30 per cent and 20 per cent, or 3/5 and 2/5 respectively. Howard received \$1,000 in cash (\$2,500 capital − \$1,500 possible loss), and Hurley received \$4,000 (\$5,000 capital − \$1,000 possible loss). The capital account of Howard now has a credit balance of \$1,500; that of Hurley, a credit balance of \$1,000. By distributing cash in this manner, the partners will absorb the \$2,500 loss in their profit-and-loss ratio if they cannot collect from Read. Read's debit balance should not be closed into the capital accounts of the other partners until it is definitely found that collection from Read is impossible. If collection is made on July 10, the following entries, which are shown in general journal form, will close the rest of the accounts in the ledger of the partnership:

July 10	Cash	2,500	
	R. S. Read, Capital		2,500
	To record the cash received from Read to pay his indebtedness to Howard and Hurley		
10	O A Howard, Capital	1,500	
	P M Hurley, Capital	1,000	
	Cash		2,500
	To distribute the cash received from Read according to the balances of the other capital accounts		

SIGNIFICANCE OF THE PARTNERS' CAPITAL ACCOUNTS The partners may agree to distribute profits and losses in any way they wish, irrespective of their capital interest in the partnership, although, as already explained, one basis of distribution is the investments of the partners. Although the partners' investments may not affect the division of profits and losses, they will determine the amounts of the claims that the partners may have upon the assets when the partnership is dissolved for any reason.

QUESTIONS

1. If Quigley sells to Willard his interest in the partnership of Quigley and Wittman, what entry is required in the partnership books? Does it reflect the selling price? Explain.

2. If the partnership of Jansen and Clement takes over a building owned by Clement that cost him $20,000 but that is valued for the partnership at $30,000, should goodwill be debited for $10,000? Explain.

3. Tiemann and Lyons are partners having equal interests in a $10,000 partnership. Rogers invests $8,000, and receives a one-third interest in the partnership. Give journal entries showing two methods of recording the admission of Rogers.

4. Duffy and Wilcox are partners with investments of $10,000 and $15,000 respectively. Duffy receives two thirds of the profits; Wilcox, one third. Carter invests $10,000 and is given a one-fifth interest in the partnership. (a) Give journal entries showing two methods of admitting Carter to the partnership. (b) Assume that Carter invests $8,000 and is given a one-third interest. Give journal entries.

5. Adams and Baker are partners having investments of $16,000 and $8,000 respectively and sharing profits and losses equally. Give the journal entry for the admission of Donald as a partner under each of the following conditions:

(a) Donald pays Adams $10,000 for one half of his interest.
(b) Donald is given a one-third interest for an investment of $18,000 (bonus method).
(c) Donald pays Adams and Baker $6,000 each for a one-third interest in the partnership.
(d) Donald invests $6,000 and receives a one-fourth interest (goodwill method).

6. James, Roy, and Towne start a partnership on January 2. James invests $12,000; Roy, $8,000; and Towne, $4,000. On December 31 they decide to dissolve the partnership. After paying their debts, they have $6,000 in cash. How much should be paid to each partner?

7. An accounting writer has referred to goodwill as a "master valuation account." Considering "valuation accounts" as presented in Chapters XIII and XIV and "goodwill" as presented in this chapter, do you agree with this statement?

8. William Lindell and Arthur McNeil are partners with capital investments of $15,000 and $10,000 respectively. They share profits and losses in proportion to capital investments. Walter Greenup is to be admitted as a partner. Record in journal form the entries necessary to show the admission of Greenup under each of the following conditions:

(a) Greenup invests $25,000 and receives a one-half interest in the partnership.
(b) Greenup invests $20,000 and receives a one-half interest in the partnership. (Do not use goodwill.)
(c) Greenup invests $20,000 and receives a one-third interest in the partnership. (Show goodwill.)

(d) Greenup buys one half of the interest of each partner, paying Lindell $9,000 and McNeil $6,000 respectively

(e) Greenup buys one third of Lindell's interest for $6,000 and one half of McNeil s interest for $6,000

(f) Greenup invests $25,000 and receives a one third interest In the partnership (Use goodwill)

PROBLEMS

1 Miller and George are partners sharing profits 80% and 20% respectively On January 2 their interests in the firm are as follows Miller, $12,000, and George, $4,000 Henry is admitted as a partner upon the investment of $5,000 in cash

Instructions Record the investment by Henry in general journal form under the following conditions

(1) Henry is given a one-third interest, goodwill being recorded

(2) Henry is given a one-third interest a bonus being allowed to the new partner

(3) Henry is given credit for the actual investment made

(4) Henry is given a one-seventh interest goodwill being recorded

(5) Henry is given a one seventh interest a bonus being allowed to the old partners

2 On December 31, Grant is retiring from the partnership of Bogert, Freedman, and Grant, who share profits equally The balance sheet on that date is given below

BOGERT FREEDMAN, AND GRANT
BALANCE SHEET
DECEMBER 31 19

Cash	20,000	Liabilities	5,000
Other Assets	30 000	Bogert, Capital	20,000
		Freedman, Capital	15 000
		Grant, Capital	10,000
Total Assets	50,000	Total Liab and Prop	50 000

Instructions Construct general journal entries for Grant's withdrawal under the following circumstances

(1) Grant sells his interest to Bogert, he receives Bogert's personal note for $9,000

(2) Grant sells his interest to Rhine, whom Bogert and Freedman have agreed to accept as a partner, for $12 000 cash

(3) Grant accepts $3,000 less than the book value of his interest and is paid in cash by the remaining partners.

(4) Grant withdraws $8,000 in cash and accepts a note from Bogert and Freedman for the remainder, equal in total to his proprietorship.

(5) Grant withdraws $8,000 in cash and $4,000 in other assets in exchange for his interest.

3. The balance sheet of the firm of A, B, and C just prior to liquidation is as follows:

A, B, AND C
BALANCE SHEET
JUNE 30, 19--

Cash	5,000	Liabilities	16,000
Other Assets	45,000	A, Capital	20,000
		B, Capital	10,000
		C, Capital	4,000
Total Assets	50,000	Total Liab. and Prop.	50,000

A, B, and C share profits in the ratio of $\frac{2}{5}$, $\frac{2}{5}$, and $\frac{1}{5}$.

Instructions: Prepare general journal entries to record the liquidation under each of the following circumstances, considered individually:

(1) If all of the other assets are sold for $50,000.
(2) If all of the other assets are sold for $35,000.
(3) If all of the other assets are sold for $20,000.

4. The partnership of Morris and William has the following post-closing trial balance on December 31 of the current year:

MORRIS AND WILLIAM
POST-CLOSING TRIAL BALANCE
DECEMBER 31, 19--

		Cash	11,000	
		Accounts Receivable	20,000	
		Merchandise Inventory	12,000	
		Equipment	6,000	
		Res. for Depr. of Equipment		1,500
		Accounts Payable		3,500
		Frank Morris, Capital		23,000
		Walter William, Capital		21,000
			49,000	49,000

It is agreed that a new partner, Robert Shiller, is to be admitted to the partnership.

Instructions (1) Prepare general journal entries to correct the books of Morris and William before the new partnership was formed In making the corrections, assume that Morris and William share benefits equally The corrections are

(a) A reserve for bad debts amounting to 5% of receivables is to be set up.

(b) Merchandise in the amount of $2,000 is found to be obsolete and unsalable

(c) Various unpaid vouchers amounting to $400 were not included in accounts payable at December 31

(2) Prepare a new post-closing trial balance for the balance for the partnership of Morris and William after the foregoing corrections

(3) Record the admission of Robert Shiller as a partner, using the bonus method Shiller invests cash, $5,400, merchandise, $15,000, equipment, $5,000 He is to receive a one third interest in the partnership and the profits

(4) Prepare a balance sheet for the new partnership of Morris, William, and Shiller as of January 1 of the following year

PRACTICE SET No. 2

Part 1

Preliminary Instructions. The purpose of this practice set is to provide terial that requires the application of the principles discussed in preing chapters. The set is divided into two parts. Part 1 includes the nsactions for July of a partnership that operates a retail paint busis. Part 2, which follows Chapter XXIV, includes the transactions for gust of the same business. The business is incorporated on August 1.

Although the transactions are typical of those completed by a retail nt business, the purpose of the set is not to illustrate the methods and records of a particular type of business, but rather the general princis followed by all businesses.

The books of original entry consist of:

(1) A general journal with columns headed General Dr., General Cr., Accounts Receivable Cr., Social Security Taxes Dr., Federal Old-Age Benefit Tax Payable Cr., State Unemployment Tax Payable Cr., and Federal Unemployment Tax Payable Cr.

(2) A sales journal similar to the one illustrated on page 328.

(3) A cash receipts journal with columns headed General Ledger Cr., Accounts Receivable Cr., Sales Cr., Sales Tax Payable Cr., Sales Discount Dr., and Cash Dr.

(4) A voucher register similar to the one illustrated on pages 276 and 277.

(5) A check register with columns headed Vouchers Payable Dr., Purchases Discount Cr., F.O.A.B. Tax Payable Cr., Federal Income Tax Withheld Cr., and Cash Cr.

(6) A petty cash book similar to the one illustrated on page 259.

(7) A note receivable register similar to the one illustrated on pages 262 and 263.

(8) A note payable register similar to the one illustrated on pages 264 and 265.

At the end of the month the posting is to be proved by a trial balance, l schedules of the accounts receivable and the unpaid vouchers are to prepared. In addition, an eight-column work sheet, a balance sheet, l a profit and loss statement are to be prepared; the accounts are to be usted and closed; a post-closing trial balance is to be taken; and revers- entries are to be recorded as of the first day of the next month.

In actual practice, cash would be proved, a deposit made, and the ividual accounts posted on each day. Because of the comparatively all number of transactions in the set, however, this work will be comted only at the times indicated in the narrative of transactions.

The general ledger accounts to be used are

Cash
Petty Cash
Notes Receivable
Interest Receivable
Accounts Receivable
Reserve for Bad Debts
Merchandise Inventory
Store Equipment
Reserve for Depreciation of Store Equipment
Delivery Equipment
Reserve for Depreciation of Delivery Equipment
Office Equipment
Reserve for Depreciation of Office Equipment
Building
Reserve for Depreciation of Building
Land
Store Supplies
Office Supplies
Prepaid Insurance
Prepaid Interest on Notes Payable
Notes Payable
Interest Payable
Vouchers Payable
Federal Old Age Benefit Tax Payable
Federal Unemployment Tax Payable
State Unemployment Tax Payable
Federal Income Tax Withheld
Sales Tax Payable
Accrued Payroll
Federal Income Tax Payable
Property Taxes Payable
Mortgage Payable
A C Adams, Capital
A C Adams, Personal
M R Parker, Capital
M R Parker, Personal
Preferred Stock, 6%
Common Stock
Premium on Preferred Stock
Earned Surplus
Profit and Loss Summary
Sales
Sales Returns and Allowances
Purchases
Freight In
Purchases Returns and Allowances
Sales Salaries
Advertising Expense
Depreciation of Store Equipment
Store Supplies Used
Expired Insurance on Merchandise
Expired Insurance on Store Equipment
Miscellaneous Selling Expense
Delivery Salaries
Depreciation of Delivery Equipment
Expired Insurance on Delivery Equipment
Miscellaneous Delivery Expense
Repairs on Building
Depreciation of Building
Expired Insurance on Building
Property Taxes
Officers Salaries
Office Salaries
Social Security Taxes
Rent Expense
Depreciation of Office Equipment
Office Supplies Used
Expired Insurance on Office Equipment
Loss from Bad Debts
Miscellaneous General Expense
Purchases Discount
Interest Income
Sales Discount
Interest Expense

Instructions (1) Open the general ledger accounts, numbering the pages consecutively Not all of these accounts will be used during the first month of this practice set, but all should be opened at this time

The balance sheet of June 30 of Adams & Parker, who operate a retail paint business, is as given on the following page

ADAMS & PARKER
BALANCE SHEET
JUNE 30, 19--

Assets			
Current Assets:			
Cash		3,117.15	
Notes Receivable		950.00	
Interest Receivable		7.54	
Accounts Receivable	3,358.90		
Less Reserve for Bad Debts	112.09	3,246.81	
Merchandise Inventory		32,738.25	
Total Current Assets			40,059.75
Fixed Assets:			
Store Equipment	1,500.00		
Less Reserve for Depreciation	300.00	1,200.00	
Delivery Equipment	1,200.00		
Less Reserve for Depreciation	480.00	720.00	
Office Equipment	700.00		
Less Reserve for Depreciation	210.00	490.00	
Total Fixed Assets			2,410.00
Deferred Charges to Expense:			
Store Supplies		160.00	
Office Supplies		90.00	
Prepaid Insurance		70.00	
Total Deferred Charges to Expense			320.00
Total Assets			42,789.75
Liabilities			
Current Liabilities:			
Notes Payable		1,550.00	
Interest Payable		7.89	
Vouchers Payable		4,724.90	
Federal Old-Age Benefit Tax Payable		127.40	
Federal Unemployment Tax Payable		38.22	
State Unemployment Tax Payable		171.99	
Federal Income Tax Withheld		237.90	
Sales Tax Payable		224.85	
Total Current Liabilities			7,083.15
Proprietorship			
A. C. Adams, Capital		17,853.30	
M. R. Parker, Capital		17,853.30	
Total Proprietorship			35,706.60
Total Liabilities and Proprietorship			42,789.75

Instructions: (2) Make the opening entry in the General Dr. and Cr. columns of the general journal from the balance sheet. Post the entry.

The customers' accounts in the accounts receivable ledger are as follows

T W Burke, 1330 Meier St., City
H V Caldwell, Elmwood
Carter Construction Co, 835 Chapel St., City
Damon Building Co, 122 Somerset, City
George W Emerson, 561 Carlisle, City
J R Ferris 411 Forest Ave, City
C W Harrison, 8100 Beech Drive City
Haines Construction Co, Ludlow
Kennedy Contracting Corporation, 221 Lyons St, City
Robert J Kirk, 1974 Sutter St, City
Henry B Lange, 910 Mound Ave, City
Roy D Lucas, 3950 Delmar St, City
Masters Housing Corporation, 2723 Euclid St, City
Meade Wall Paper & Paint Co, 4028 Eastern Ave, City
Nelson Homes Co, 838 Park St, City
Walter T Perry, Hamilton
William W Ragan 125 W Robbins City
L E Snider, Hamilton
E A Tate 409 Pike Ridge, City
Fred M Warren, 3019 Alpine St, City

Instructions (3) Open the accounts in the accounts receivable ledger, arranging the accounts in alphabetic order

The details of accounts receivable on June 30 are

Name	Terms	Date of Unpaid Invoice	Sales	Sales Tax
T W Burke		June 21	$195 30	$ 3 91
H V Caldwell		June 13	175 00	3 50
Carter Construction Co	2/10	June 26	312 75	6 26
Damon Building Co	2/10	June 23	292 86	5 86
George W Emerson		May 31	137 45	2 75
J R Ferris		June 6	175 00	3 50
Haines Construction Co	2/10	June 25	261 00	5 22
C W Harrison		June 25	112 50	2 25
Kennedy Contracting Corp	2/10	June 24	279 45	5 59
Robert J Kirk		June 1	155 75	3 12
Roy D Lucas		Mar 15	105 00	
Masters Housing Corp	2/10	June 26	202 95	4 06
Meade Wall Paper & Paint Co	2/10	June 25	220 95	4 42
Nelson Homes Co	2/10	June 24	337 50	6 75
Walter T Perry		June 18	100 75	
L E Snider		June 18	200 00	
Fred M Warren		Feb 6	37 50	
			$3,301 71	$ 57 19
				3,301 71
Total Accounts Receivable				$3,358 90

Instructions: (4) Record the balances in the appropriate customers' accounts.

Contractors and painters receive a cash discount if payment is made within 10 days of the date of the invoice. All accounts are due by the tenth of the month following the month in which the purchase was made.

The date of each sale should be shown in the Items column. The special terms allowed contractors should also be entered in the Items column.

The unpaid vouchers in the vouchers payable file are as follows:

Date	Vchr. No.	Name	Date of Invoice	Terms	Amount
May 27	312	Frazier & Gerard	May 25	n/60	375.00
June 10	331	Maxwell Glass Co.	June 8	1/30,n/60	475.50
11	335	Lewis Glass Co.	June 10	1/30,n/60	565.75
15	346	Hayden & Co.	June 15	n/30	56.75
15	347	Carey Brushes Corp.	June 17	2/15,n/30	198.50
17	351	Davison Hardware Co.	June 18	2/15,n/30	237.50
17	352	O'Keefe Supply Co.	June 18	2/15,n/30	348.00
19	355	Irwin & Sons	June 20	2/15,n/60	160.00
22	360	Barron Bros.	June 24	2/10,n/30	649.90
28	366	Potter Paint & Paper Co.	June 27	1/30,n/60	325.00
29	368	Burgess Paint Co.	June 28	1/10,n/30	350.00
29	369	Ramsey Wholesale House	June 28	1/30,n/60	525.00
29	370	Spangler Supply House	June 28	1/30,n/60	458.00
		Total Vouchers Payable			$4,724.90

Instructions: (5) Enter the unpaid vouchers in the voucher register in numerical order. Foot the Vouchers Payable Cr. column, check the footing with the balance of the vouchers payable account in the general ledger, record the total, and rule with single and double lines. Place a check mark directly below the total to indicate that this total need not be posted.

The notes receivable on hand are as follows:

Note for $400 signed by William W. Ragan, dated April 16, our No. 19, payable at the Union National Bank, time 90 days, interest 6%.

Note for $300 signed by Nelson Homes Co., dated May 11, our No. 21, payable at Liberty Bank & Trust Co., time 60 days, interest 6%.

Note for $250 signed by Carter Construction Co., dated June 29, our No. 25, payable at National Hamilton Bank, time 60 days, interest 6%.

Instructions: (6) Record the details of the notes receivable in the notes receivable register.

The notes payable are as follows:

Note No 8, payable to Eilerson Company, dated April 13, payable at the City National Bank, time 90 days, interest 4%, face, $350

Note No 10 payable to Joslin's Painter Supply Company, dated May 9, payable at the City National Bank, time 60 days, interest 6%, face $550

Note No 13, payable to O Keefe Supply Company, dated June 29, payable at the City National Bank, time 60 days, interest 5%, face $650

Instructions (7) Record the details of the notes payable in the notes payable register

Instructions (8) Enter the cash balance in small pencil figures in the Explanation column of the cash receipts journal for use in proving cash during the month

Instructions (9) Under date of July 1 record the reversing entries for interest receivable and interest payable

Narrative of Transactions for July

July 1 Sent a check to Carey Brushes Corporation in payment of Voucher No 347 less discount Number the checks beginning with 361

July 1 Prepared a voucher and issued a check to establish a petty cash fund of $25 from which small payments of $5 or less are to be made (All payments of more than $5 are made by check) Number the vouchers beginning with 375

July 1 Prepared a voucher and issued a check for $350 to the Peterson Realty Co for July rent

July 1 Received checks from customers as follows
Damon Building Co , $292 36, to balance its account.
Nelson Homes Co , $337 50, to balance its account

July 2 Paid $2 15 from the petty cash fund for repairs on a typewriter. (Number the petty cash vouchers beginning with 1)

July 2 Sent checks to the following creditors
Davison Hardware Co , in payment of Voucher No 351 less discount.
O'Keefe Supply Co , in payment of Voucher No 352 less discount
Barron Bros , in payment of Voucher No 360 less discount

July 3 Made the following sales on account
Sale No 661, T W Burke, $88 34, sales tax, $1 77, total invoice, $90 11
Sales No 662, C W Harrison, $253 30, sales tax, $5 07, total invoice, $258 37

July 3 Received checks from customers as follows
Kennedy Contracting Corporation, $279 45, to balance its account less discount
Haines Construction Co , $261, to balance its account less discount.
J R Ferris, $178 50, to balance his account

July 5. Made the following purchases on account:

Burgess Paint Co., merchandise, $902.75. Invoice dated July 2; terms, 1/10,n/30.

Carey Brushes Corporation, merchandise, $709.10. Invoice dated July 3; terms, 2/15,n/30.

July 5. Sent a check to Irwin & Sons in payment of Voucher No. 355 less discount.

July 6. Made the following sale on account:

Sale No. 663, Damon Building Co., $136.57; sales tax, $2.73; total invoice, $139.30; terms, 2/10.

July 6. Received checks from customers as follows:

Masters Housing Corporation, $202.95, to balance its account less discount.
Carter Construction Co., $312.75, to balance its account less discount.

July 6. Paid $4.95 from the petty cash fund for the preparation of sales letters.

July 6. Prepared a voucher and issued a check for the payroll for the week. The following data are provided by the payroll clerk and may be used as a basis for the entries:

Sales Salaries	$325.00	
Delivery Salaries	65.00	
Office Salaries	100.00	
Total of Payroll		$490.00
Deductions:		
Employees' share of Federal old-age benefit tax	$ 4.90	
Employees' income tax withheld	18.30	
Total Deductions		23.20
Amount Paid		$466.80

July 6. Recorded the company's liability for its share of the federal old-age benefit tax and for its federal and state unemployment taxes. The data provided by the payroll clerk for this entry are as follows:

Federal old-age benefit tax	$ 4.90	
State unemployment tax	13.23	
Federal unemployment tax	1.47	
Total social security taxes		$19.60

July 6. Cash sales for the week, $1,478.40. Sales tax collected, $29.57.

July 8. Received from Walter T. Perry a check for $100.75 to balance his account.

July 8. Made the following purchase on account:

Ramsey Wholesale House, merchandise, $142.20. Invoice dated July 6; terms, 2/10,n/30.

July 8. Prepared a voucher and issued a check to Joslin's Painter Supply Co. in payment of our note No. 10 and interest due today.

July 8 Sent checks to the following creditors
Maxwell Glass Company, in payment of Voucher No 331 less discount.
Burgess Paint Company, in payment of Voucher No 368 less discount

July 8 Received from L E Snider his 30 day, 6% note for $200 in payment of his account This note was dated July 8 and is payable at the First National Bank Use the number 26 as the number for this note when you enter it in the notes receivable register

July 9 Made the following sales on account
Sale No 664 Carter Construction Co, $339 07, sales tax $6 78 total invoice $345 85 terms 2/10
Sale No 665 Haines Construction Co $710 55, sales tax, $14 21, total invoice, $724 76 terms 2/10

July 9 Prepared vouchers and sent checks to the following
Collector of Internal Revenue, $127 40 for quarterly payment of federal old age benefit tax
Collector of Internal Revenue, $237 90, for quarterly payment of income tax withheld
Bureau of Unemployment Compensation $171 99 for quarterly payment of state unemployment tax
Department of Taxation, $224 85 for monthly payment of sales tax

July 9 Received from H V Caldwell his 30 day 6% note for $178 50 in payment of sale of June 13 This note was dated July 9 and is payable at the Union National Bank

July 9 Received a credit memorandum from Carey Brushes Corporation for $131, merchandise returned on Voucher No 378

July 10 Received checks from customers as follows
Nelson Homes Company $303 in payment of note and interest due today
Meade Wall Paper & Paint Co $225 37 to balance its account
T W Burke, $199 21, in payment of sale of June 21

July 10 Made the following purchases
Hayden & Company, office supplies $85 40 Invoice dated July 10, terms cash Issued check in payment
Potter Paint & Paper Co, merchandise, $148 11 Invoice dated July 9, terms, 1/30 n/60

July 10 Received from George W Emerson his 60 day, 6% note for $140 20 in payment of sale of May 31 This note was dated July 10 and is payable at the First National Bank

July 10 Sent a check to Lewis Glass Company in payment of Voucher No 335

July 11 Made the following sale on account
Sale No 666 Kennedy Contracting Corporation, $175 95 sales tax, $3 52, total invoice, $179 47, terms 2/10

July 11 Give the deliveryman $2 80 from the petty cash fund for repairs to the delivery truck (Charge Miscellaneous Delivery Expense)

July 11 Made the following purchase
Morris Supply Company, store supplies, $55, terms, cash Issued check in payment.

July 11. Paid Charles Dawes $15 for washing windows and cleaning office. (Charge Miscellaneous General Expense.)

July 12. Made the following sales on account:
Sale No. 667, Henry B. Lange, $91; sales tax, $1.82; total invoice, $92.82.
Sale No. 668, Nelson Homes Co., $718.65; sales tax, $14.37; total invoice, $733.02; terms, 2/10.

July 12. Prepared a voucher and issued a check to Eilerson Company in payment of our note No. 8 and interest due today.

July 12. Paid the *Daily Times* $75 for advertising.

July 12. Paid the Broadway Garage $10.50 for repairs on delivery truck. (Charge Miscellaneous Delivery Expense.)

July 12. Sent Burgess Paint Co. check in payment of Voucher No. 377.

July 13. Paid A. C. Adams $16.75 to reimburse him for entertaining customers. (Charge Miscellaneous Selling Expense.)

July 13. Issued credit memorandum to Haines Construction Company for $107.10: merchandise returned, $105; sales tax, $2.10.

July 13. Paid salaries for the week. Recorded the deductions for federal old-age benefit tax and the employee's income tax and the company's liability for its share of the federal old-age benefit tax and for its federal and state unemployment taxes. Salaries, deductions, and taxes were the same as on July 6.

July 13. Cash sales for the week, $1,816.22. Sales tax collected, $36.32.

Prove cash. The cash balance is $2,100.54. Cash is proved by comparing this balance with the sum of the cash on hand at the beginning of the month plus the cash receipts minus the cash payments. The totals may be entered in small pencil figures in the cash columns in the cash receipts journal and the check register, and the balance may be entered in small pencil figures in the explanation column of the cash receipts journal so that the amounts entered before this cash proof will not have to be used when cash is proved again.

Post from the various journals to the customers' accounts in the accounts receivable ledger. In actual practice this posting would be completed daily, but because of the comparatively small number of transactions in this set, the posting will be completed only at the times indicated in the narrative of transactions.

July 15. Received from William W. Ragan a check for $406 in payment of note and interest due today.

July 15. Made the following purchase on account:
Eilerson Company, merchandise, $1,180.25. Invoice dated July 13; terms, 1/30,n/60.

July 15. Sent Hayden & Company a check in payment of Voucher No. 346.

July 16. Made the following sale on account:
Sale No. 669, E. A. Tate, $850.30; sales tax, $17.01; total invoice, $867.31.

July 16. Received from Damon Building Co. a check for $136.57 to balance its account.

July 16. Borrowed $2,000 from the City National Bank on our 60-day, non-interest-bearing note. Received credit for the proceeds, $1,980.

July 16 Received a memorandum from Mr Parker stating that Mr Fred M Warren has been declared bankrupt and that it is likely that his account will never be collected Write off the account as a bad debt

July 16 Sent Ramsey Wholesale House a check in payment of Voucher No 380 less discount

July 17 Paid $4 95 from petty cash for parcel wrappings (Charge Miscellaneous Selling Expense)

July 18 Sent Carey Brushes Corporation a check in payment of Voucher No 378 less discount

July 19 Made the following sale on account
Sale No 670 Meade Wall Paper & Paint Co $188 68 sales tax $3 77 total invoice $192 45 terms 2 10

July 19 Received checks from customers as follows
Carter Construction Co $339 07 to balance its account
Haines Construction Co $605 55 to balance its account
Kennedy Contracting Corporation $175 95 to balance its account

July 20 Paid $3 50 from the petty cash fund for ink and miscellaneous supplies to be used in the office

July 20 Issued credit memorandum to Nelson Homes Company for $26 56 merchandise returned $26 sales tax 56 cents

July 20 Paid salaries for the week and recorded the social security taxes Salaries deductions and taxes were the same as on July 6

July 20 Cash sales for the week $2 135 30 Sales tax collected $42 71
Prove cash The cash balance is $6 692 24
Post from the various journals to the customers accounts in the accounts receivable ledger

July 22 Received from Ellerson Company a credit memorandum for merchandise returned $245

July 22 Received from Nelson Homes Co a check for $692 61 to balance its account

July 23 Made the following sale on account
Sale No 671 H V Caldwell $381 20 sales tax $7 62 total invoice $388 82

July 23 Made the following payments from the petty cash fund
$2 81 to a cash customer who returned defective merchandise merchandise $2 75 sales tax 6 cents
95 cents to Richard Barman for washing the windows

July 23 Made the following purchase on account
Morris Supply Company store supplies $33 75 Invoice dated July 23 terms net 30 days

July 24 Made the following purchases on account
Barron Bros merchandise $591 50 Invoice dated July 22 terms 2/10 n/30
Joslins Painter Supply Corporation merchandise $325 Invoice dated July 24 terms 2/10 n/30

July 24. Gave Frazier & Gerard our 30-day, 6% note payable at City National Bank in payment of Voucher No. 312.

July 25. Paid the *Daily Times* $185 for advertising.

July 26. Made the following purchases on account:

Spangler Supply House, merchandise, $607. Invoice dated July 26; terms, 1/30,n/60.

Burgess Paint Co., merchandise, $578.50. Invoice dated July 24; terms, 1/10,n/30.

July 26. Issued credit memorandum to E. A. Tate for $45.90: merchandise returned, $45; sales tax, 90 cents.

July 27. Made the following sales on account:

Sale No. 672, William W. Ragan, $269.43; sales tax, $5.39; total invoice $274.82.

Sale No. 673, J. R. Ferris, $475.50; sales tax, $9.51; total invoice, $485.01.

July 27. Sent checks to the following creditors:

Potter Paint & Paper Co. in payment of Voucher No. 366.
Ramsey Wholesale House in payment of Voucher No. 369.
Spangler Supply House in payment of Voucher No. 370.

July 27. Paid salaries for the week and recorded the social security taxes. Salaries, deductions, and taxes were the same as on July 6.

July 27. Cash sales for the week, $1,820.25. Sales tax collected, $36.41.

July 29. Received from Meade Wall Paper & Paint Co. a check for $188.68 to balance its account.

July 29. Made the following purchase on account:

O'Keefe Supply Co., merchandise, $997.50. Invoice dated July 27; terms, 2/15,n/30.

July 30. Paid telegram charges of $1.25 from the petty cash fund.

July 30. Issued credit memorandum to William W. Ragan for $8.75: merchandise returned, $8.58; sales tax, 17 cents.

July 31. In accordance with the partnership agreement, the partners withdrew the following amounts as salaries:

A. C. Adams, $400
M. R. Parker, $500

July 31. Paid Sinton Drayage Company $112.75 for freight and drayage in.

July 31. Prepared vouchers and issued checks for the following bills:

The Gas & Electric Co., $25.25, for gas and electricity. (Charge Miscellaneous General Expense.)

Bell Telephone Co., $16.25, for telephone service. (Charge Miscellaneous General Expense.)

Broadway Garage, $27.25, gas, oil, and miscellaneous delivery truck expenses.

July 31. Prepared voucher and issued check for $23.36 to replenish the petty cash fund.

July 31. Cash sales for July 29-31, $828.95. Sales tax collected, $16.58.

The cash balance is $7,224.14. Prove cash.

Post to the accounts in the accounts receivable ledger

Post to the general ledger accounts from the general columns of the general journal, the cash receipts journal, and the voucher register

Total and rule the various special journals and post the totals to the appropriate general ledger accounts

Periodic Summary

As the proprietors A C Adams and M R Parker, consider each month to be a separate fiscal period the periodic summary must now be completed. The partners have agreed that Mr Adams is to receive $400 and Mr Parker $500, and that profits or losses after these allowances are to be divided equally When the books are closed any balances in the personal accounts are to be closed to the capital accounts

The additional data required for the periodic summary are

Merchandise inventory		$30,828 14
Interest accrued on notes receivable		3 24
Loss from bad debts an additional 1% of charge sales		
Depreciation	store equipment 10% a year	
	delivery equipment, 25% a year	
	office equipment, 10% a year	
Inventories of supplies	store supplies	116 25
	office supplies	117 65
Insurance expired	on merchandise	2 50
	on store equipment	2 00
	on delivery equipment	6 50
	on office equipment	1 00
Interest accrued on notes payable		3 33
Prepaid interest on notes payable		15 00
Accrued Payroll Data		
Sales Salaries		162 50
Delivery Salaries		32 50
Office Salaries		50 00
Social Security Taxes		9 81
Federal old age benefit tax payable		4 90
Federal unemployment tax payable		74
State unemployment tax payable		6 62

Part 2 of this practice set containing the narrative of transactions for August, begins on page 449 immediately after Chapter XXIV The books of account for July will be needed at that time

CHAPTER XXI

CORPORATION PROPRIETORSHIP

CORPORATION DEFINED During the past half century the corporate form of business organization has rapidly increased in importance. With the growth of large business units has come a demand for amounts of capital so large that they are obtainable only from many investors. Such investors desire income and limited liability, but they are unable to undertake active management. The corporation satisfies these needs and has today become the dominant form of business organization.

The most commonly quoted definition of a corporation is perhaps that of Chief Justice Marshall. "A corporation is an artificial being, invisible, intangible, and existing only in contemplation of the law." The concept underlying this definition has become the foundation for the prevailing legal doctrine that a corporation is an artificial person, created by law and having a distinct existence, separate and apart from the natural persons who are responsible for its creation and operation. Although the doctrine is admittedly a legal fiction, it is disregarded only when a court believes that justice requires such action. The owners of the corporation are called stockholders, but the stockholders do not constitute the corporation. The corporation is a "separate entity."

CHARACTERISTICS OF A CORPORATION As a legal entity the corporation has certain characteristics that distinguish it from other types of business organization. The most important of these characteristics will be considered briefly.

(1) *Separate Legal Existence.* Being a distinct legal entity, the corporation may act under a corporate name. It may obtain, hold, and dispose of property in its corporate capacity. It may borrow funds and assume other obligations. It may enter into contracts with outsiders or with its own stockholders.

(2) *Transferable Units of Proprietorship.* The interests in the proprietorship of a corporation are divided into transferable units known as *shares* of stock. The owners of the corporation, known as *stockholders,* may sell this stock without interfering with the operations of the corporation.

(3) *Limited Liability of Stockholders.* Since a corporation is a separate legal entity, it is responsible for its own acts and obligations.

Creditors of a corporation may not look beyond the assets of the corporation for satisfaction of their claims. Thus, the loss that a stockholder may suffer is limited to the amount of his investment.

(4) *Continuity of Existence.* The life of a corporation depends upon the terms of its charter; it may be perpetual or it may continue for a specified period of years. It is not affected by the death or the incapacity of its stockholders.

(5) *Taxation of Income.* The earnings of a corporation are subject to federal income taxes. These earnings are again subject to income taxes when distributed to stockholders as dividends.

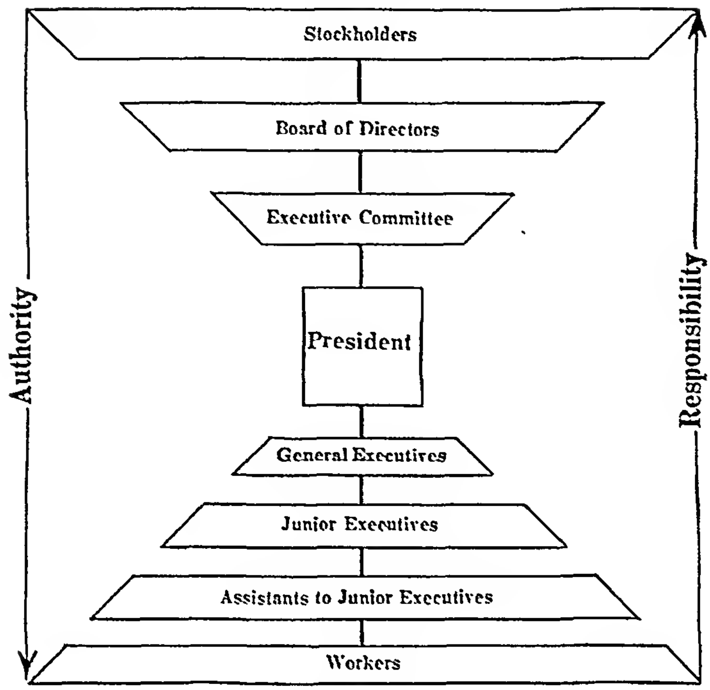
WORKING ORGANIZATION OF A CORPORATION In a corporation the proprietorship is vested in the stockholders, acting as a "legal entity." The ownership of the stockholders is evidenced by shares of stock. Each share of stock gives the holder the right to one vote in the meetings of stockholders The power of each member therefore depends upon the number of shares he owns.

In many corporations the membership is so large and widespread that most stockholders are unable to attend the annual meeting. Such stockholders may delegate their authority to an agent who votes their stock. This delegation is accomplished by signing a paper known as a *proxy*

Although the ultimate control of the corporation is vested in the stockholders, the latter exercise this control only indirectly. They elect at regular intervals, usually annually, a *board of directors,* to whom they delegate the duties of supervising and controlling the operations of the business. The directors usually submit to the stockholders annual reports showing the results of the operations of the past year.

The board of directors select the *general executives,* to whom they delegate the responsibility of administering the activities of the corporation. These executives usually consist of a president, one or more vice-presidents, a secretary, a treasurer, and a controller. The *controller* is the chief accounting officer and meets with the other executives in determining operating policies of the corporation. Although all the executives are selected by the board of directors, they act under the authority and the control of the president.

The chart on the following page shows this narrowing down of the responsibility from the numerous stockholders to the president. It then shows the delegation of administrative duties from the president to the employees of the corporation.



Corporate Form of Organization

An illustration of this delegation of duties is found in a manufacturing firm that has a vice-president in charge of production and under him a superintendent of shops. The latter, in turn, has subordinate to him departmental foremen, who direct and control the activities of the workers.

STOCKHOLDERS AND PROPRIETORSHIP The stockholders of a corporation have no direct personal ownership in the assets of the enterprise. Neither do they have a direct interest in the earnings of the corporation until the earnings have been distributed as dividends. Instead they have a contract with the corporation giving them an interest in the corporate proprietorship and the right to participate in the management and the earnings of the enterprise.

The proprietorship of a corporation, like the proprietorship of an individual, is the difference between the assets and the liabilities. The corporate proprietorship, however, is composed of two elements: a stated proprietorship, represented by a given number of shares at a specified amount per share, and a residual proprietorship, showing the results of the operations of the corporation. The stated proprietorship is the value assigned to the capital stock. When the proprietorship of a corporation is greater than the amount of the capital stock, the excess is known as *surplus;* when it is smaller than the amount of

the capital stock, the difference is known as *deficit.* The total proprietorship of a corporation consists of the capital stock plus the surplus or minus the deficit. These terms are illustrated below for the General Manufacturing Company:

Proprietorship	$60,000	Proprietorship	$45,000
Capital Stock (stated proprietorship)	50,000	Capital Stock	50,000
Surplus	$10,000	Deficit	$ 5,000

To show the difference in the proprietorship accounts of a sole proprietorship and a corporation, assume original investments in each case of $50,000 on January 2, 1949, earnings in 1949 of $5,000, and a loss of $15,000 in 1950 no withdrawal or distribution of profits being made The proprietorship accounts would appear as follows:

Sole Proprietorship		Corporation	
Jan 2, 1949 Jones, Capital	$50,000	Jan 2, 1949 Capital Stock	$50,000
Dec. 31, 1949 Jones, Capital	55,000	Dec 31, 1949 Capital Stock	50,000
		Surplus	5,000
Dec. 31, 1950 Jones, Capital	40,000	Dec. 31, 1950 Capital Stock	50,000
		Deficit	10,000

When surplus is set up as an account, it normally has a credit balance showing the difference between proprietorship and capital stock If proprietorship is less than capital stock, the surplus balance is a debit and is called deficit. This is illustrated below:

Surplus	
Debit balance is called Deficit	Credit balance is called Surplus

Deficit is, then, a balance sheet term applied to a debit balance in the surplus account.

CLASSIFICATION OF CAPITAL STOCK A corporation may issue several classes of capital stock, each embodying different terms and carrying different privileges. The most common classification is that of *common stock* and *preferred stock.* Common stock has no preference over any other stock of the company as to dividends or assets, but carries with it the right to participate in the management of the corporation by voting at stockholders' meetings. Preferred stock has some kind of preference over the ordinary, or common, stock. It is always preferred as to the distribution of profits. To

understand the effect of this preference, it is necessary to consider briefly the method of distributing the profits of a corporation.

Stockholders invest in a corporation in order to participate in its earnings. The board of directors determines when the corporation is financially able to distribute to its stockholders a portion or all of its earnings. Such a distribution of earnings is called *declaring a dividend.* Dividends are usually stated as a certain amount per share, as $5 per share or $2 per share.

To make its stock attractive to investors, a corporation may issue a portion of it with preference as to dividends. This means that, whenever profits are distributed, the preferred stockholders will receive their share first, the common stockholders receiving the balance of the distribution. Preferred stock is sometimes given a preference as to distribution of assets in case of dissolution and liquidation of the corporation. If the net assets are insufficient to repay the investments of all stockholders, payment will be made first in total to preferred stockholders, and the balance remaining will be distributed to the common stockholders.

If a corporation earns a high rate of return, common stock will be more desirable than preferred stock. For example, assume a corporation with 1,000 shares of common and 1,000 shares of 6 per cent preferred, each issued at a value of $100 a share. If $15,000 is to be distributed as dividends, the preferred stockholders will receive $6,000 and the common stockholders $9,000. Common stockholders in this case receive a 9 per cent dividend, which is 50 per cent larger than the preferred.

The participation of holders of preferred stock in the earnings of a corporation is ordinarily limited to the rate specified on the stock. Preferred stock that is limited to the specified rate is known as *nonparticipating.* If the holders of preferred stock receive an additional rate when earnings are adequate to pay the holders of common stock more than the specified rate, the preferred stock is known as *participating.*

Since most preferred stock is nonparticipating and has a limited dividend rate, provision is usually made to have any dividends not paid accumulate. Such preferred stock is known as *cumulative* preferred stock. If unpaid dividends do not accumulate, the preferred stock is known as *noncumulative.* The following table illustrates the dividend participation of 6 per cent cumulative preferred stock and common stock over a period of years (assuming $100,000 of each kind of stock outstanding) and the effect on surplus of the balance of profit and loss.

Year	Profit or Loss*	Dividend to be Paid	To Preferred Stock	To Common Stock	To Surplus	Balance Surplus
1945	$15 000	$10 000	$ 6 000	$ 4 000	$ 5 000	$ 5 000
1946	25 000	15 000	6 000	9 000	10 000	15 000
1947	*10 000**	-0-	-0-	-0	*10 000**	5 000
1948	30 000	15 000	12 000	3 000	15 000	20 000
1949	2 000	3 000	3 000	-0-	*1 000**	19 000
1950	25 000	20 000	9 000	11 000	5 000	24 000

In 1948 the preferred stock was paid $6 000 for back dividends for 1947 and $6 000 for the current year In 1950 the preferred stock was paid $3 000 for back dividends for 1949 and $6 000 for the current year

CORPORATE PROPRIETORSHIP ON THE BALANCE SHEET The assets and the liabilities of a corporation are reported on the balance sheet in the same way as the assets and the liabilities of a sole proprietorship or a partnership The proprietorship section of the balance sheet however is different It ordinarily shows each class of capital stock and the surplus or the deficit For example the proprietorship section of a balance sheet for a corporation with $100 000 of 6 per cent cumulative preferred stock $200 000 of common stock and a surplus of $75 000 is as follows

Proprietorship

Capital Stock		
Preferred Stock (6 per cent cumulative)	$100 000	
Common Stock	200 000	
Total Cap tal Stock	$300 000	
Surplus	75 000	
Total Proprietorship		$375 000

If the same corporation had suffered losses from operations and had accumulated a deficit of $50 000 its proprietorship would be reported on the balance sheet in the manner shown below

Proprietorship

Capital Stock		
Preferred Stock (6 per cent cumulative)	$100 000	
Common Stock	200 000	
Total Cap tal Stock	$300 000	
Less Deficit	50 000	
Total Proprietorship		$250 000

VALUE OF STOCK The value of the stock of a corporation is spoken of in terms of shares. A share may have six different values: par value, book value, market value, liquidation value, stated value, and redemption value.

Par Value. Par value is the value assigned to each share of stock when the charter is issued. It is stated on each certificate. *Par value* and *face value* are sometimes used as synonyms. No-par-value stock does not have par value, but it has the other values discussed in the following paragraphs.

Book Value. The par value of the capital stock does not measure the proprietorship. The par value of the capital stock plus the surplus or minus the deficit equals the actual proprietorship. *Book value* is obtained by dividing the proprietorship by the number of shares outstanding. Thus, if the balance sheet of a corporation shows a capital stock of $100,000 (1,000 shares having a par value of $100) and a surplus of $35,000, the book value of each share is $135. If, instead of a surplus of $35,000, there is a deficit of $35,000, the book value of each share is $65 [($100,000 − $35,000) ÷ 1,000].

If a corporation has both preferred and common stock, the par value of the preferred stock must be subtracted from the total proprietorship in finding the book value of the common stock. If the par value of the common stock on the first partial balance sheet on page 384 is $100, the book value of one share of common stock is $137.50 [($375,000 − $100,000) ÷ 2,000]. When the deficit is $50,000 as shown on the second partial balance sheet on page 384, the book value of one share of common stock is $75 [($250,000 − $100,000) ÷ 2,000].

Market Value. The prices quoted daily on the New York Stock Exchange or on other stock exchanges provide the best evidence of market value. Literally, *market value* means the price the stock will bring on sale. Earning capacity rather than book value affects the market value of stocks. The stock mentioned above with a book value of $135 might have a market value of $175 if its earnings were high or only $75 if its earnings were low.

Other Values. The other values are stated value, liquidation value, and redemption value. *Stated value* indicates that part of the price received for no-par stock that is credited to Capital Stock; the balance is credited to Capital Surplus. *Liquidation value* is the amount in dollars that will be paid on each share if the corporation is liquidated. *Redemption value* usually applies to a preferred stock and is the amount the corporation must pay to redeem each share of outstanding stock.

INCORPORATION A corporation is 'authorized by law and created by charter Since a corporation is created by permission from governmental authority and under the supervision of a governmental unit, legal formalities must be met before a charter will be granted Although these legal requirements vary in the different states their general nature can be indicated The typical method of organization involves two steps (1) obtaining subscriptions to stock and effecting a tentative organization, (2) obtaining the permission of the state to commence business operations The law usually stipulates what the application for incorporation must contain In many cases the state merely approves the application for incorporation The application then becomes the charter of the corporation

A corporation must conform to the corporate laws of the state in which it has been organized If it extends its operations beyond the state it is subject to the federal laws involving interstate commerce and the laws of all states in which it carries on business It is also subject to that general control which any state exercises over all business organizations

CERTIFICATE OF INCORPORATION The charter states the powers that the corporation possesses and the limitations under which it must operate The provisions governing the form of the application for incorporation vary in different states but in general they include all the important features peculiar to a corporation such as the name the purpose the duration the location and the capitalization

To illustrate what is required the following provisions from the statutes of the state of New York are given

> Three or more persons may become a stock corporation for any lawful purpose or purposes by making subscribing acknowledging, and filing a certificate which shall state
>
> (1) The name of the proposed corporation
>
> (2) The purpose or purposes for which the corporation is to be formed
>
> (3) Either the amount of the capital stock and the number and par value of the shares of which it is to consist or if the corporation is to issue shares without par value the statements required by Section 12
>
> (4) If the shares are to be classified the number of shares to be included in each class and all of the designations preferences privileges and voting powers of the shares of each class and the restrictions or qualifications thereof
>
> (5) The city village or town and the county in which the office of the corporation is to be located

(6) The duration of the corporation.

(7) The number of its directors . . . not less than three.

(8) The names and post-office addresses of the directors . . .

(9) The name and post-office address of each subscriber listed on the certificate of incorporation and a statement of the number of shares which he agrees to take . . .

The certificate must be signed by the three or more persons who make application for the charter, and their signatures must be acknowledged by a notary public or some other designated official.

ISSUING STOCK IN RETURN FOR CASH OR OTHER ASSETS

When a corporation receives its charter, the books ot record may be opened. The incorporators, or organizers, of the corporation have, in most cases, performed some transactions prior to the granting of the charter and should have kept a record of them. These transactions are not, however, transactions performed by the corporation; therefore, no entries should be made in the records of the corporation until the charter has been obtained.

The opening entries of a corporation are similar to those of other types of business organizations in that they record the assets that the corporation has acquired and the liabilities, if any, that the corporation is to assume. The proprietorship of the corporation at the time of formation is recorded as one item; it is not credited to accounts with the individual members of the organization, as would be done in the case of a partnership.

The simplest case that can be taken by way of illustration is that of a corporation, the entire authorized capital stock of which has been sold for cash. The Holmes Manufacturing Company is organized on March 15 with an authorized capital stock of $800,000, consisting of 4,000 shares of 5 per cent preferred stock and 4,000 shares of common stock, each having a par value of $100. If all the capital stock is sold for cash on March 15, the transaction in general journal form would be:

Mar. 15	Cash	800,000	
	5% Preferred Stock		400,000
	Common Stock		400,000
	Sold 4 000 shares of 5% preferred stock and 4 000 shares of common stock at $100 a share par value and issued the stock.		

After this entry has been posted to the ledger, the cash account will contain a debit of $800,000, the preferred stock account a credit of $400,000, and the common stock account a credit of $400,000.

In the previous discussion it was assumed that stock was sold for cash and that the cash was invested in the assets needed by the corporation Occasionally stock is exchanged for assets directly; in this case a price must be assigned to the assets acquired For example, if a lot is to be acquired as a site for a building to be used by the corporation, the board of directors must know the price of the lot in order to determine the number of shares to be exchanged for it If the price is $10,000 and shares of common stock are being sold for cash at $100 par value, the number of common shares to be given for the land would be 100 The entry would be

Mar 20	Land	10,000	
	Common Stock		10,000
	Exchanged 100 shares of common stock at $100 a share for land as per contract		

If payment for the stock had been made with several pieces of property, such as machinery, buildings, and land, which were to be retained for use by the corporation, the opening entry would have recorded the various assets as follows

Mar 20	Machinery	150,000	
	Buildings	155 000	
	Land	95,000	
	Common Stock		400,000
	Issued 4 000 shares of common stock (par value $100) in return for machinery build ings and land acquired from C D Evans in accordance with the contract on file		

AUTHORIZED CAPITAL STOCK *It is often desirable to have the charter* authorize the issuance of more stock than the quantity to be issued at the time of the formation of the corporation The company is then relieved of the necessity of applying for a change in the charter at the time when it may wish to increase its capital For example, if the charter of the B C Olmsted Company authorizes an issue of only $400,000 of common stock, the amount already issued, but at a later time $200,000 of additional capital is needed, it would be necessary for the company to have its charter revised before it could issue the additional stock

If the charter, however, authorizes the issuance of common stock amounting to $600,000 and only $400,000 has been issued, the remaining $200,000 of stock can be issued at any time without further authorization from the state

The authorized capital stock of the B C Olmsted Company may be reported in a footnote on the balance sheet in the following manner

Proprietorship		
Common Stock Outstanding	$400,000*	
Surplus	120,000	
Total Proprietorship		$520,000
Total Liabilities and Proprietorship		520,000

*Authorized Common Stock, $600,000.

In some cases the charter specifies no pecuniary value for each share of stock, but states merely the number of shares to be offered for sale. Such stock is of *no-par value.* Each share of stock, however, represents a proportionate equity in the corporation.

CHANGING FROM A PARTNERSHIP TO A CORPORATION

From a legal point of view, changing from a partnership to a corporation necessitates (1) the dissolution of the partnership, which is usually effected by an agreement between the partners, and (2) the fulfillment of all the requirements imposed by the state upon the incorporators, which is evidenced by the charter granted by the state. From an accounting point of view, two steps are necessary: (1) the books of the partnership must be closed according to the partnership agreement and (2) the books of the corporation must be opened in compliance with the provisions of the charter.

To illustrate the change of a partnership to a corporation, it may be assumed that W. L. Slater and H. S. Burbank are partners. In order to obtain additional capital for the expansion of their enterprise, the partners decide to incorporate.

Closing the Books of the Partnership. The balance sheet of the partnership is shown on the following pages.

The new corporation, to be called the Slater Corporation, is to have an authorized capital stock of $500,000, consisting of 5,000 shares of common stock with a par value of $100. The corporation is to take over the assets and to assume the liabilities of the partnership at revised values and is to issue to W. L. Slater and H. S. Burbank, in payment for their business, capital stock amounting to the revised proprietorship of the partnership. In addition, a new associate, D. C. Bennett, agrees to invest $75,000 in cash. He is to receive 750 shares of stock.

Before turning the partnership assets over to the corporation, it is decided to recognize certain changes in the valuation of the firm's assets. It is estimated that $5,000 should be added to the reserve for

SLATER AND
BALANCE SHEET

Current Assets			
Cash		$ 25 000	
Accounts Receivable	$105 000		
Less Res for Bad Debts	5 000	100 000	
Merchandise Inventory		150,000	
Total Current Assets			$275,000
Fixed Assets			
Store Equipment	$ 6 000		
Less Res for Depreciation	1 000	$ 5,000	
Buildings	$100 000		
Less Res for Depreciation	20 000	80,000	
Land		50,000	
Total Fixed Assets			135,000
Total Assets			410 000

Balance Sheet of

bad debts, that the merchandise inventory should be written down to $130,000, and that the land should be written up to $65 000 The entries on January 2 in the books of the partnership to record these changes are as follows

Jan 2	Loss and Gain on Revaluation	5,000	
	Reserve for Bad Debts		5,000
	To increase provision for uncollectible accounts		
2	Loss and Gain on Revaluation	20,000	
	Merchandise Inventory		20 000
	To reduce valuation of merchandise inventory in accordance with current market values		
2	Land	15,000	
	Loss and Gain on Revaluation		15,000
	To increase book value of land to present valuation		
2	W L Slater, Capital	5,000	
	H S Burbank, Capital	5,000	
	Loss and Gain on Revaluation		10,000
	To distribute loss on revaluation to partners' capital accounts in the profit and loss ratio		

The losses and the gain might have been debited and credited directly to the capital accounts, but in this instance the losses and the gain are first accumulated in an account entitled Loss and Gain

BURBANK
DECEMBER 31, 1949

LIABILITIES

Current Liabilities:		
Notes Payable	$ 50,000	
Accounts Payable	100,000	
Total Current Liabilities		$150,000

PROPRIETORSHIP

W. L. Slater, Capital	$155,000	
H. S. Burbank, Capital	105,000	
Total Proprietorship		260,000
Total Liabilities and Proprietorship		$410,000

a Partnership

on Revaluation, which in turn is closed to the capital accounts. This method is often preferred when a number of assets are revalued.

The following entries are made in the partnership books to record the sale of the business and the consequent dissolution of the partnership:

Jan. 2	Slater Corporation	400,000	
	Reserve for Bad Debts	10,000	
	Res. for Depreciation of Store Equip.	1,000	
	Res. for Depreciation of Buildings	20,000	
	Cash		25,000
	Accounts Receivable		105,000
	Merchandise Inventory		130,000
	Store Equipment		6,000
	Buildings		100,000
	Land		65,000
	Sold the assets of the business to the Slater Corporation.		
2	Notes Payable	50,000	
	Accounts Payable	100,000	
	Slater Corporation		150,000
	Transferred the liabilities of the business to the Slater Corporation.		
2	Stock, Slater Corporation	250,000	
	Slater Corporation		250,000
	Received 2,500 shares of the capital stock of the Slater Corporation in payment of the amount due for the partnership business.		

2	W L Slater, Capital	150,000	
	H S Burbank, Capital	100 000	
	Stock, Slater Corporation		250 000
	Distributed the 2 500 shares of stock of the Slater Corporation to the partners		

The posting of these entries will close all the accounts in the ledger of the partnership The partnership will then be completely dissolved

Opening the Books of the Corporation On the books of the corporation entries must be made to record the assets received and the issuance of stock The fixed assets are recorded at their net cost to the corporation, the original cost and the depreciation taken by the former owner are not shown For accounts receivable, however, both the gross amount and the reserve are shown, because the uncollectible accounts have not actually been determined and the asset therefore cannot be written down to its estimated net value

The opening entries, in general journal form, for the Slater Corporation are as follows

Jan 2	Cash	25 000	
	Accounts Receivable	105 000	
	Merchandise Inventory	130 000	
	Store Equipment	5 000	
	Buildings	80 000	
	Land	65 000	
	Reserve for Bad Debts		10,000
	Slater and Burbank Vendors		400 000
	Purchased the assets of Slater and Burbank		
2	Slater and Burbank Vendors	150,000	
	Notes Payable		50 000
	Accounts Payable		100,000
	Assumed the liabilities of Slater and Burbank		
2	Slater and Burbank, Vendors	250 000	
	Common Stock		250,000
	Issued 2,500 shares of common stock to Slater and Burbank on the transfer of their business to the corporation		
2	Cash	75,000	
	Common Stock		75,000
	Issued 750 shares of stock to D C Bennett for cash		

After these entries have been posted to the ledger, the following balance sheet for the Slater Corporation may be prepared

SLATER CORPORATION
BALANCE SHEET
JANUARY 2, 1950

ASSETS			
Current Assets:			
Cash		$100,000	
Accounts Receivable	$105,000.00		
Less Res. for Bad Debts	10,000.00	95,000	
Merchandise Inventory		130,000	
Total Current Assets			$325,000
Fixed Assets:			
Store Equipment		$ 5,000	
Buildings		80,000	
Land		65,000	
Total Fixed Assets			150,000
Total Assets			$475,000
LIABILITIES			
Current Liabilities:			
Notes Payable		$ 50,000	
Accounts Payable		100,000	
Total Current Liabilities			150,000
PROPRIETORSHIP			
Common Stock Outstanding			325,000*
Total Liabilities and Proprietorship			$475,000

*Authorized Common Stock $500,000

Balance Sheet of a Corporation

GOODWILL ON CORPORATION ACCOUNTS When a partnership is converted into a corporation, the amount of stock issued to the partners may be greater than the net assets acquired by the corporation. This difference is a charge to goodwill. This practice was fully described in the chapters on partnerships. For example, if a corporation acquires a going partnership in exchange for 500 shares of its stock (par value $100) and takes over the following assets and assumes the following liabilities, the goodwill is the difference between the par value of the stock given in exchange and the net worth acquired. Calculation of goodwill is shown on the following page:

Assets Acquired		
Cash	$ 8,000	
Accounts Receivable (net)	34 000	
Inventories	20,000	
Fixed Assets (net)	60,000	
Deferred Charges	3,000	
Total Assets		$125,000
Liabilities Assumed		
Notes Payable	$15,000	
Accounts Payable	25 000	
Mortgage Payable	40,000	
Total Liabilities		80 000
Net Assets Acquired		$ 45 000
Stock Given in Exchange		50 000
Goodwill		$ 5 000

COMPARISON OF THE CORPORATION AND THE PARTNERSHIP A comparison of the corporation and the partnership reveals more completely the nature of the corporation The chief differences between the two forms of organization are shown in the following outline

Corporation	Partnership
1 Separate legal entity	1 Identification of organization with the individuals who compose it
2 Continuity of existence	2 Automatic dissolution arising from death withdrawal or incapacity of a partner
3 Limited liability of the stockholders	3 Unlimited personal liability of the partners
4 Obligations arising only from the acts of agents or officers	4 Obligations arising from the acts of any partner
5 Profits do not belong to stockholders unless dividends are declared	5 Profits are personal profits of the partners
6 Control of stockholders is indirect	6 Control of partners is direct and personal
7 Payments to stockholders for personal services are expenses	7 Payments to partners for personal services are a disposition of earnings

From the preceding comparison it can be seen that a partnership, like a sole proprietorship, is legally identified with the persons who own it and is therefore a personal form of business organization By contrast, the corporation is an impersonal form, since it exists apart from the lives of any persons

QUESTIONS

1. F. R. Blake and John C. Davis are partners in the firm of Blake and Davis, each having a proprietorship of $20,000. The firm is incorporated with an authorized common stock of $60,000. Two hundred shares of stock, each having a par value of $100, are sold at par to R.O.Good. Both Blake and Davis receive the same quantity of stock for their interest in the partnership. How is the proprietorship reported on the balance sheet?

2. R. W. White is considering the purchase of stock in The Nash Manufacturing Company. He finds that the stock is quoted on the stock exchange at $65 a share. In examining the reports of the company, he obtains the following information from the latest balance sheet: current assets, $25,000; fixed assets, $40,000; current liabilities, $10,000; common stock, $50,000; surplus, $5,000. There are 1,000 shares of stock outstanding. (a) If the stock is no-par-value stock, at what average price was it issued? (b) What is its book value? (c) What is its market value?

3. Harry Bullis owns 1,000 of the 5,000 shares (par value $100) of the General Manufacturing Company. The company earned $100,000 in 1950. The board of directors declared $10 a share in dividends during the year. Was Bullis' income for 1950 $10,000 or 1/5 of $100,000? Why?

4. Charles Wayt purchased 100 shares of the preferred stock ($100 par value) of the Acme Manufacturing Company at $90 a share on March 6, 1949. On July 1, he received a semiannual dividend of $350. On January 2, 1950, he received from the company a check for $10,750, canceling the stock. What are the stock values included in this illustration? What was the dividend rate on the preferred stock?

5. The balance sheet of the Y Corporation shows assets of $175,000, liabilities of $50,000, and surplus of $25,000. It has outstanding 500 shares ($100 par) of preferred stock and 500 shares ($100 par) of common stock. (a) What is the book value of the preferred stock? (b) What is the book value of the common stock? (c) If the preferred stock were participating, how would your answer differ?

6. The board of directors of the newly organized Shore Corporation decide to purchase the factory of C. A. Randall. On Randall's books the assets are recorded as follows: land, $5,000; building cost, $25,000; reserve for depreciation of building, $10,000; machinery cost, $50,000; reserve for depreciation of machinery, $20,000. Present market values are: land, $10,000; building, $20,000; machinery, $40,000. Common stock is issued to Randall at par ($100) in exchange for the property. Give the journal entry on the books of the Shore Corporation.

7. The Ferris Transportation Company made the following net earnings in six successive years $10,000, $15 000, $5,000, $2,500, $20,000, $25,000 It had outstanding 1,000 shares of common stock and 1,000 shares of 6 per cent preferred stock, each share having a par value of $100 Four fifths of the profits were paid each year as dividends How much did each stockholder receive on a share if the preferred stock was cumulative and nonparticipating?

8 Ahern Inc has $100,000 of 6 per cent cumulative and nonparticipating preferred stock and $100,000 of common stock, The amounts distributed as dividends during five years were first year, $2,000, second year, $15,000, third year, $30,000, fourth year, $20,000, fifth year, $6 000 How much was paid each year on each class of stock? What percentage was paid on common stock each year? Which stock was the better investment if both were purchased at the par value?

PROBLEMS

1. The Howard Corporation and the Dodd Corporation both received their charters and began business on January 2, 1944 Both corporations had the same capitalization 2,000 shares of 8% cumulative preferred stock, par $100, and 2,000 shares of common stock, par $100 In each case the board of directors declared dividends on preferred stock whenever there was a credit balance in the surplus account at the end of the year and declared dividends on common stock amounting to one half of the difference between the earnings in any year and the preferred dividends paid in that year

The profits and the losses (after provision for income tax) for a period of seven years are as follows

	Howard Corporation	Dodd Corporation
1944	$18 000 loss	$ 8 000 loss
1945	12,000 profit	2 000 loss
1946	20 000 profit	38,000 profit
1947	40 000 profit	64,000 profit
1948	36,000 profit	90,000 profit
1949	30,000 profit	78,000 profit
1950	34,000 profit	86,000 profit

Instructions (1) Show the distribution of the profit or the loss for each corporation Use columns with the following headings Year, Income, To Preferred Stock, Balance Due on Preferred Stock, To Common Stock, To Surplus or Deficit, Balance of Surplus or Deficit Indicate negative or minus items by encircling them

(2) Total the two columns showing the amounts paid on preferred and common stock What was the amount received per share on common and preferred stock for the seven year period?

2. Arthur Crawford, the owner of a retail dry goods business, and two of his clerks decide to form a corporation issuing $10 par common stock and 6% cumulative, $100 par preferred stock. Each clerk is to invest $1,500 in the Crawford Corporation and is to receive 150 shares of common stock. Mr. Crawford is to receive preferred stock based upon the revalued assets and liabilities. Cash is to be withdrawn by Mr. Crawford so that an even multiple of 10 shares will be received. Mr. Crawford is to receive in addition 200 shares of common stock in payment for the goodwill of his dry goods business.

The post-closing trial balance on December 31, 1950, at the end of a year's operations and before the revaluation of assets and the organization of the corporation is as follows:

Cash	$ 3,700	
Merchandise Inventory	32,000	
Equipment	12,000	
Reserve for Depreciation of Equipment		$ 5,000
Accounts Payable		9,000
Arthur Crawford, Capital		33,700
	$47,700	$47,700

The following assets are to be revalued:

Merchandise Inventory, $29,000.
Increase Reserve for Depreciation of Equipment by $2,000.

Instructions: (1) Prepare general journal entries to:
(a) Revalue the assets and record the goodwill as agreed.
(b) Record the withdrawal of cash.
(c) Record the sale of the business to the corporation.
(2) Prepare journal entries to open the books of the corporation.
(3) Prepare the balance sheet for the corporation.
(4) Assuming a profit of $7,360, after income tax, for the succeeding year, what dividends would each of the three men receive if 50% of the profits are to be distributed as dividends? What rate will be paid on common stock?

3. Three grocery store owners decide to merge and incorporate their respective stores, X, Y, and Z, to form the Modernmart Chain Stores Inc. The corporation is authorized to issue 3,000 shares of 4% preferred stock, par value $100, and 20,000 shares of common stock, par value $25. Preferred stock is to be distributed to the three owners on the basis of one share for every $100 of the net assets of their respective companies. All assets are to be revalued as of the date of the proposed merger, June 30, 1950. Common stock is to be issued at par for goodwill of Company X, $24,000, and Company Y, $5,500. The preferred stock will be distributed on the basis of the net assets, exclusive of goodwill, after giving effect to the revaluation.

To obtain cash to build a new branch, 10,000 shares of common are sold at par to the public.

Balance sheets of the three companies prior to the incorporation of June 30 are

Assets	X	Y	Z
Cash	$10,000	$10,000	$ 5,000
Merchandise Inventory	50,000	23,000	40,000
Equipment	35,000	24,000	35,000
Buildings	56,000	—	—
Land	25,000	—	—
Total Assets	$176,000	$57,000	$80,000
Liabilities and Proprietorship			
Accounts Payable	$ 30 000	$20 000	$25 000
Proprietorship	146 000	37,000	55,000
Total Liab and Proprietorship	$176 000	$57,000	$80,000
Assets are to be revalued as follows			
Merchandise Inventory	$ 45,000	$20,000	$35,000
Land	20,000	—	—

Instructions (1) Prepare general journal entries for each of the three companies to record the revaluation of assets and the goodwill

(2) Prepare revised balance sheets for each of the three companies in the form shown in this problem

(3) Compute the number of shares of preferred and common stock each of the three former owners will receive for their companies

(4) Prepare a balance sheet as it will appear after the merger and the sale of the 10,000 shares of common stock to the public for cash at par

CHAPTER XXII

CORPORATION ACCOUNTS AND RECORDS

RECORDING SUBSCRIPTIONS TO CAPITAL STOCK

In the preceding chapter it was assumed that corporation stock was exchanged directly for cash or property. Ordinarily before stock is actually sold a corporation accepts subscriptions for its capital stock. Those who expect to become stockholders subscribe for stock, thereby agreeing to pay cash at a later date for the shares for which they subscribe. This amount represents a receivable of the corporation and is debited to an account entitled Subscriptions Receivable. At the same time the proprietorship of the corporation has been increased and an account entitled Stock Subscribed is credited. Each of these accounts represents a situation involving subsequent transactions. The subscriber must pay his subscription; the corporation must issue the stock certificate. Since stock certificates are freely transferable, it is not advisable for the corporation to issue stock until the subscription is fully paid.

Separate receivable and subscribed accounts should be set up for subscriptions to preferred and common stocks. Subscriptions to preferred stock would require the use of the accounts Subscriptions Receivable Preferred and Preferred Stock Subscribed; to common stock, the accounts Subscriptions Receivable Common and Common Stock Subscribed.

The subscriptions receivable accounts are controlling accounts. They control the subscribers' ledgers in which accounts with individual subscribers are set up. The relation of the subsidiary ledger in this case is exactly the same as the customers' ledger described in Chapter VIII.

SUBSCRIPTION TRANSACTIONS ILLUSTRATED

To illustrate the use of accounts for stock subscriptions, assume that on July 1 the Evans Corporation receives subscriptions for 500 shares of common stock at par $100. The journal entry below is made to show the corporation's claim against the subscribers and the subscribers' equity in the corporation:

July 1	Subscriptions Receivable Common..............	50,000	
	Common Stock Subscribed....................		50,000
	Received subscriptions for 500 shares of common stock at par, $100.		

In accordance with the terms of the subscription contract, a payment of $40 on each share is made on the same date. The following entry records the receipt of the cash and the credit to the subscribers:

July 1	Cash	20,000	
	Subscriptions Receivable Common		20,000
	Received partial payment of $40 a share on 500 shares of common stock subscribed.		

The final payment on the stock subscriptions is received on July 15 and is recorded as follows:

July 15	Cash	30,000	
	Subscriptions Receivable Common		30,000
	Received final payment of $60 a share on 500 shares of common stock subscribed.		

Since the stock has now been fully paid for, it may be issued. The following entry records the issuance of the stock:

July 15	Common Stock Subscribed	50,000	
	Common Stock		50,000
	Issued 500 shares of common stock to subscribers.		

The nature of the subscriptions receivable and the stock subscribed accounts is shown by the use of "T" accounts in the chart below. They are temporary accounts and cease to function after full payment has been received on the stock subscriptions.

TEMPORARY ACCOUNTS

CASH	
(b) 20,000	
(c) 30,000	

SUBSCRIPTIONS RECEIVABLE	
(a) 50,000	(b) 20,000
	(c) 30,000

COMMON STOCK	
	(d) 50,000

COMMON STOCK SUBSCRIBED	
(d) 50,000	(a) 50,000

The transactions (a) to (d) illustrated are the same as those shown in the journal entries. It should be noted that the temporary accounts are in balance after full payment has been received.

If a corporation receives subscriptions to its preferred stock and later collects cash on these subscriptions, the accounting entries would be similar to those shown above except that the accounts Subscriptions Receivable Preferred and Preferred Stock Subscribed would be used.

If a balance sheet of the corporation is prepared before subscriptions receivable are fully paid, the balance in the subscriptions receivable account would appear as a current asset and the balance in the stock subscribed account would appear as a proprietorship item.

ISSUING STOCK AT A PREMIUM OR A DISCOUNT

Capital stock is sometimes issued for more or less than its par value. When this is done, a new account is set up to record the difference between the selling price and the par value. When stock is issued for more than its par value, it is said to be issued at a *premium;* when it is issued for less than par value, it is issued at a *discount.* In many states corporations are not permitted to issue stock for less than par.

If stock is subscribed at a premium, the subscriptions receivable account is debited for the selling price, the stock subscribed account is credited at par, and a premium on stock account is credited for the difference. Assume, for example, that the Evans Corporation, mentioned previously, received subscriptions for 500 shares of its preferred stock at $110 a share on July 25. The entry to record the subscription is:

July 25	Subscriptions Receivable Preferred................	55,000	
	Preferred Stock Subscribed....................		50,000
	Premium on Preferred Stock.		5,000
	Received subscriptions for 500 shares of preferred stock at $110 a share.		

If the laws of the state permitted and the above stock had been subscribed at a discount, the difference between the par value and the subscription price would have been debited to an account entitled Discount on Preferred Stock. For example, if the subscriptions to preferred stock mentioned above had been at $90 a share, the entry to record the subscriptions would be:

July 25	Subscriptions Receivable Preferred................	45,000	
	Discount on Preferred Stock......................	5,000	
	Preferred Stock Subscribed....................		50,000
	Received subscriptions for 500 shares of preferred stock at $90 a share.		

Premium on Preferred Stock and Discount on Preferred Stock are valuation accounts affecting the par value set up in the preferred stock account. Since these amounts arise out of stock transactions, they are not considered as corporation earnings or losses. They are therefore set up on the balance sheet under the heading Capital Surplus. (See illustration on page 402).

Assume that the stock of the Evans Corporation that was subscribed for at $110 on July 25 was to be paid for one half at once and the balance on August 10 On July 25 the following entry would be made to record receipt of the first payment

July 25	Cash	27,500	
	Subscriptions Receivable Preferred		27,500
	Received partial payment of $55 a share on 500 shares of preferred stock subscribed		

On August 10 the final payment would be recorded together with an entry for the issuance of the stock These entries are shown below

Aug 10	Cash	27 500	
	Subscriptions Receivable Preferred		27 500
	Received final payment of $55 a share on 500 shares of preferred stock subscribed		
Aug 10	Preferred Stock Subscribed	50 000	
	Preferred Stock		50 000
	Issued 500 shares of preferred stock to subscribers		

A balance sheet prepared for the Evans Corporation on July 31, before the August 10 transactions would appear as follows

EVANS CORPORATION

BALANCE SHEET

JULY 31 1949

ASSETS		PROPRIETORSHIP	
Cash	$ 77 500	Preferred Stock Subscribed	$ 50 000
Subscriptions Receivable Preferred	27 500	Common Stock	50 000
		Capital Surplus	
		Premium on Preferred Stock	5 000
Total Assets	$105 000	Total Proprietorship	$105 000

Both of the assets are current assets since Subscriptions Receivable Preferred are due on August 10 The premium on preferred stock is shown on the balance sheet as Capital Surplus

On August 10, after the second payment on subscriptions has been collected and the preferred stock has been issued, the balance sheet would appear as follows

EVANS CORPORATION
BALANCE SHEET
AUGUST 10, 1949

ASSETS		PROPRIETORSHIP	
Cash............. ...	$105,000	Preferred Stock . .	$ 50,000
		Common Stock	50,000
		Capital Surplus:	
		Premium on Preferred Stock	5,000
Total Assets..........	$105,000	Total Proprietorship.	$105,000

CAPITAL SURPLUS AND EARNED SURPLUS The chief source of corporate surplus is undistributed earnings of the corporation. When corporate profits are retained and not paid as dividends to stockholders, the increase in proprietorship comes from earnings and is shown by increases in the surplus account. If only earnings and dividends affected surplus, then all surplus would be earned surplus.

As is shown in the preceding paragraphs, surplus is affected by transactions other than those showing earnings and dividends. When stock is sold at a premium, a credit is made to the surplus account Premium on Stock. Such an item is clearly not an earning of the corporation and therefore differs from the earned surplus. It is called *capital surplus* to distinguish it from *earned surplus*. Increases in proprietorship, beyond those shown in the capital stock accounts, from sources other than earnings are called *capital surplus* items. On the balance sheet, capital surplus and earned surplus should be shown as two separate items.

Because of popular misunderstanding of the term "surplus," there is a growing movement to avoid the word in published corporation balance sheets. In place of "earned surplus" the phrase "retained income" is often used; in place of "capital surplus," the phrase "paid-in capital." Both of these phrases, "retained income" and "paid-in capital" avoid the use of the misinterpreted "surplus" and express very well the nature of the two items.

CORPORATION EARNINGS The determination of the profit or the loss for a corporation is similar to that for a sole proprietorship or a partnership. The corporation account Profit and Loss Summary contains the same income and expense items. However, after the net profit of a corporation has been found, two

differences appear (1) provision for corporation income tax and (2) declaration and payment of dividends to stockholders

While both of these items are a part of the year's operations, it is prevailing practice not to show dividend declarations as a part of Profit and Loss Summary The balance of the profit after the provision for income tax is transferred to the earned surplus account Dividend declarations are then charged to this surplus account rather than to Profit and Loss Summary or to a separate income distribution account

INCOME TAX AND CORPORATE STATEMENTS Of the three forms of business organizations only the corporation needs accounts to record income tax liability Since the payment of income tax is made in the year following that for which the tax is assessed, the balance sheet of a corporation shows a current liability for this tax until payment has been made Among the current liabilities on such a balance sheet there is commonly an item that may be termed Provision for Federal Income Tax, Reserve for Federal Income Tax, or Federal Income Tax Payable Since the tax is payable within a year, the account is classified as a current liability

Income tax differs from other taxes in that, by provision of the law, it is not an expense of the business The law is worded in such a way that income tax represents a participation by the taxing authority in the profits of the corporation The government is the first participant in the distribution of earnings For example, if the earnings of a corporation for one year are $100,000 and the federal income tax rate on corporations is 40 per cent, the amount of federal income tax payable during the following year is $40,000 The entry to record the income tax liability in this case is

Dec 31	Profit and Loss Summary	40,000	
	Federal Income Tax Payable		40,000
	To record the income tax liability		

Since federal income tax is not treated as an expense but is considered to be a participation in the profits by the government, federal income tax is not included in the expenses on the work sheet or on the profit and loss statement On the work sheet the provision for federal income tax is shown as a distribution of the net profit. On the profit and loss statement, the provision for federal income tax is reported as a deduction from net profit Parts of the work sheet and the profit and loss statement, showing the provision for federal income tax, are given on the following page

Name of Account	Profit and Loss Statement		Balance Sheet	
	Dr.	Cr.	Dr.	Cr.
	268,575	368,575	537,290	437,290
Provision for Federal Income Tax....................	40,000			40,000
Net Profit after Provision for Federal Income Tax......	60,000			60,000
	368,575	368,575	537,290	537,290

Provision for Federal Income Tax on the Work Sheet

Net Profit before Provision for Federal Income Tax.............	$100,000
Less Provision for Federal Income Tax.	40,000
Net Profit after Provision for Federal Income Tax.............	$ 60,000

Provision for Federal Income Tax on the Profit and Loss Statement

DIVIDEND DECLARATION AND PAYMENT

After the current liability for federal income tax has been set up, the balance of the profit and loss summary account may be closed into the earned surplus account. As stated above, dividend declarations are usually debited to the earned surplus account.

Declaration and payment of dividends involve two separate acts and may be separated in large corporations by one or more months in time. The declaration of a dividend is at the discretion of the board of directors. If the board feels it is advisable, it declares a dividend. The resolution declaring the dividend states the time it is to be paid. The entries for declaration on December 27 and payment on January 20 are shown below and on the following page:

Dec. 27	Earned Surplus..................................	14,000	
	Preferred Dividend Payable...................		6,000
	Common Dividend Payable...................		8,000
	To record the declaration on Dec. 27 of the regular 6% dividend on preferred stock and an 8% dividend on common stock, payable on Jan. 20.		

Jan. 20	Preferred Dividend Payable	6,000	
	Common Dividend Payable	8,000	
	Cash		14,000
	To record the payment of preferred and common dividends, declared by the board on Dec. 27.		

ORGANIZATION EXPENSES Expenditures incurred in the organization of a corporation, such as fees paid to the state and attorneys' fees, are charged to an asset account Organization Cost or Organization Expense. The items charged to this account should be restricted to those baving to do with the formation of the corporation and should not include the installation of accounting systems, advertising campaigns, or professional fees for plant construction and layout.

The organization expense account is usually classed as an intangible asset and theoretically should be charged off over the estimated life of the corporation. Since it is difficult to foretell the life of the corporation and since this asset has practically no exchangeable value, it is common practice to write it off over a period of five years. The amounts written off are charged to earned surplus, as they are not a deductible expense for income tax purposes Assume the organization expenses of the Evans Corporation were $1,500; the annual write-off would appear as follows

Dec. 31	Earned Surplus	300	
	Organization Expense		300
	To write off one fifth of the organization expense		

In successive years Organization Expense would appear as an intangible asset at $1,200, $900, $600, and $300 before it was written off entirely.

BALANCE SHEET OF A CORPORATION Accounts most commonly associated with the corporate form of organization have been discussed. A balance sheet containing the balances of such accounts is shown on page 407 and a related surplus statement is shown on page 408

These statements were prepared for the O'Connell Merchandise Co. at the end of the fourth year of operation. Several items shown on these statements are worthy of special note.

(1) During the year 1950, subscriptions were received for 5,000 shares of common stock (par value $10) at par, and one half of this subscription has been collected. The ownership interest of the new subscribers is shown in item (1), Common Stock Subscribed, $50,000.

(2) Under the heading "Intangible assets" is shown the balance of the organization expense account. This was originally $20,000

O'CONNELL MERCHANDISE CO.
Balance Sheet
December 31, 1950

	Assets				
	Current Assets:				
	Miscellaneous Current Assets			$195,000	
(1)	Subscriptions Receivable Common			25,000	
	Total Current Assets				$220,000
	Fixed Assets:				
	Miscellaneous Fixed Assets				227,000
	Intangible Assets:				
(2)	Organization Expense				4,000
	Deferred Charges to Expense:				
	Miscellaneous Deferred Charges				34,000
	Total Assets				$485,000
	Liabilities				
	Current Liabilities:				
	Miscellaneous Current Liabilities			$ 35,000	
(3)	Preferred Dividend Payable No. 8			3,000	
(3)	Common Dividend Payable No. 4			30,000	
(4)	Federal Income Tax Payable			12,000	
	Total Current Liabilities				$ 80,000
	Proprietorship				
	Capital Stock:				
	Preferred Stock[a]		$100,000		
	Common Stock[b]	$200,000			
(1)	Common Stock Subscribed	50,000			
	Common Stock Outstanding and Subscribed		250,000		
	Total Capital Stock Outstanding and Subscribed			$350,000	
	Surplus:				
	Capital Surplus:				
(5)	Premium on Common Stock		$ 20,000		
	Earned Surplus		35,000		
	Total Surplus			55,000	
	Total Proprietorship				405,000
	Total Liabilities and Proprietorship				$485,000

[a] Authorized Preferred Stock, 2,000 shares, par value $100.
[b] Authorized Common Stock, 50,000 shares, par value $10.

Balance Sheet of a Corporation

O'CONNELL MERCHANDISE CO.
STATEMENT OF EARNED SURPLUS
FOR YEAR ENDED DECEMBER 31, 1950

	Earned Surplus, January 1, 1950			$39,000
	Net Profit for 1950		$48,000	
(4)	Less Provision for Federal Income Tax		12,000	
	Transferred to Earned Surplus			36,000
	Total Earned Surplus			$75,000
	Deductions:			
(3)	Dividends on Preferred Stock			
	June 27 (Dividend No 7)	$3,000 00		
	December 28 (Dividend No 8)	3,000 00	$ 6,000	
(3)	Dividends on Common Stock			
	December 28 (Dividend No 4)		30,000	
(2)	Organization Expense Written Off		4,000	
	Total Deductions			$40,000
	Earned Surplus, December 31, 1950			35,000

Statement of Earned Surplus

and is now reported at $4,000, four fifths of the amount having been written off during the four years by charges to Earned Surplus.

(3) The regular semiannual dividend on preferred and a dividend on common of $1 50 a share were declared on December 28, payable January 8, to stockholders of record on January 4. The account Preferred Stock Dividend Payable No. 8 indicates the eighth dividend declared on preferred stock since incorporation, and the account Common Stock Dividend Payable No 4 indicates the fourth dividend declared on common stock. Both dividends are listed on the balance sheet as current liabilities and on the surplus statement as deductions from Earned Surplus.

(4) The net profit for the O'Connell Merchandise Co. for the year 1950 was $48,000. The first charge against this profit was $12,000 for federal income tax. The amount of income tax is shown on the surplus statement as a deduction from net profit and on the balance sheet under the heading "Current Liabilities"

(5) The O'Connell Merchandise Co. was authorized to issue 2,000 shares of 6 per cent cumulative preferred stock with a par value of $100 and 50,000 shares of common stock with a par value of $10. Immediately after organization 1,000 shares of preferred and 10,000 shares of common were issued at par. In January, 1948, 10,000 additional shares of common stock were issued at $12 a share. The premium on common stock, $20,000, is shown on the balance sheet under the heading "Capital Surplus."

RECORDS REQUIRED BY A CORPORATION The accounts of a corporation are essentially the same as those of any other type of business organization. The few additional accounts required can be added in the general ledger. The books of original entry need not be different from those used by a sole proprietorship or a partnership. The only distinctive records required by a corporation are those used to record the corporate activities of the company. The records most commonly used for this purpose are: (1) the minute book, (2) the subscription book, (3) the subscribers ledger, (4) the stock certificate book, and (5) the stockholders ledger.

Minute Book. The minute book is the legal record of the proceedings of all meetings of the stockholders and of the board of directors. It often includes the charter and the bylaws as well. This record book serves as authority for actions of the officers and furnishes data for important entries to be made by the accountant. In it are found decisions on matters such as the purchase and the sale of property, the investment of surplus funds, the declaration of dividends, the obtaining of additional funds through the issue of bonds or additional stock, and the maintaining of reserves and sinking funds.

Subscription Book. In most states the laws governing the creation of corporations provide that a substantial part of the capital stock of a corporation must be subscribed before a charter will be granted. Blanks containing the subscription contract are usually prepared, and the signatures of those who agree to subscribe for stock are placed on them. These subscription blanks may later be filed in a binder and referred to as the *subscription book.*

Subscribers Ledger. The subscribers ledger contains accounts with the individual subscribers to capital stock. An account with each subscriber is debited from the subscription book for the amount that the subscriber agreed to pay for the stock and is credited from the cashbook with the payments made in full or on account. The subscriptions receivable account in the general ledger is also debited with the total of the subscriptions and is credited with the total of the cash received from subscribers.

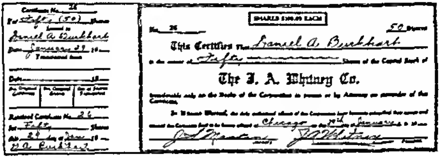
The accounts Subscriptions Receivable Preferred and Subscriptions Receivable Common control the subsidiary ledgers Preferred Subscribers Ledger and Common Subscribers Ledger. Summarized postings are made occasionally to the controlling accounts; individual or detailed postings are made currently to the subsidiary ledger accounts.

Stock Certificate Book. The stock certificate book consists of blank stock certificates numbered serially and bound in book form with a

stub for each certificate. If both preferred stock and common stock are issued, a different kind of certificate is ordinarily used for each class.

As may be seen by reference to the illustration below, each stock certificate contains the name of the corporation, the amount of the capital stock, the total number of shares, and the number of shares represented by the certificate. When stock is issued, the certificate and the accompanying stub are filled out. The stub serves as a permanent record of the number of shares of stock represented by the certificate, the name of the person to whom the stock has been issued, the date of issue, and the fact that the stock is an original issue or a reissue.

When stock is transferred, the owner must fill out the form for an indorsement that is printed on the back of the certificate.



Stock Certificate with Stub Attached

Stockholders Ledger The stockholders ledger is a subsidiary record of the capital stock outstanding. It contains a separate account for each stockholder and is controlled by the account or accounts in the general ledger that show the amount of capital stock outstanding.

The account of each stockholder is credited with the number of shares of stock purchased by him and is debited with the number of shares sold or otherwise transferred by him. The ownership, or proprietorship, of each stockholder is indicated, not by the par value or any other value of the shares held, but by the number of shares held.

REGISTRAR AND TRANSFER AGENT Corporations whose stocks are listed on the New York Stock Exchange are required to engage outside agencies to keep their stock certificate books and stockholders ledgers. This requirement ensures proper handling of stock certificates when they are bought and sold. The buyer or his agent turns in the old certificate to the transfer agent, who issues a new certificate and records the buyer as "stockholder of record" in

the stockholders ledger. The new certificate passes through the hands of the *registrar* before it goes to the buyer. Both the transfer agent and the registrar endorse the certificate at either end on the face, showing it has been properly issued. When dividends are declared, an official list of stockholders is prepared to show who are entitled to dividend checks. If the buyer's name does not appear on this list, the dividend check will be made out to the seller of the stock.

CORPORATE RECORDS AND ACCOUNTING To summarize: The minute book contains a record of the proceedings of the meetings of the stockholders and of the board of directors. It is not a book of account, but it evidences the authority for important entries made in the books of account.

The subscribers ledger is a subsidiary ledger controlled by the subscriptions receivable account in the general ledger. When subscriptions are received, the blanks may be filed in a binder, which is referred to as the subscription book. The amounts of the subscriptions are posted to the individual accounts in the subscribers ledger, and the total of the subscriptions is posted to the subscriptions receivable account in the general ledger. When payments on subscriptions are received, the individual amounts are posted to the accounts in the subscribers ledger and the total of the receipts is posted to the subscriptions receivable account in the general ledger. When the posting has been completed, the balance of the subscriptions receivable account should equal the sum of the balances of the accounts in the subscribers ledger.

The stockholders ledger is a subsidiary record of the capital stock outstanding. When stock is issued for the first time, the individual accounts in the stockholders ledger are credited for the number of shares issued, and the capital stock account in the general ledger is credited for the par value of the shares. When stock that has once been issued is transferred from one stockholder to another, an entry in the general ledger is not required since the total amount of capital stock outstanding has not been changed. The only entry necessary is that which is made from the stock certificate book to the individual accounts in the stockholders ledger.

A corporation is ready to carry on its operations after a part or all of its stock has been sold, the charter has been obtained, and the preliminary data have been recorded in the books. The fact that a business is incorporated does not mean that its activities are distinctly different from those of a sole proprietorship or a partnership. No matter what its legal organization may be, an enterprise must buy to

sell, or produce to sell; it must incur expenses and realize profits if it is to continue in business; and it must have these various transactions recorded in books of account in order to show its financial condition.

The difference in legal status between the corporation and the other forms of business organization does not affect operations to a great extent. Since the existence of a corporation is the result of procuring a charter, the corporation is necessarily subject to the regulations and provisions set forth in that document. It is subject also to the national and the state laws relating to corporations. Otherwise it acts as does a sole proprietorship or a partnership.

QUESTIONS

1. The Regal Manufacturing Company has been organized to manufacture shoes. At the end of the first day of its existence a trial balance of its ledger is as follows:

REGAL MANUFACTURING COMPANY
TRIAL BALANCE
JANUARY 2, 1950

Cash	$450,000	
Subscriptions Receivable Preferred	50,000	
Subscriptions Receivable Common	100,000	
Preferred Stock		$200,000
Preferred Stock Subscribed		100,000
Common Stock		150,000
Common Stock Subscribed		150,000
	$600,000	$600,000

(a) Explain the meaning of the balance of each account. (b) How should the proprietorship be reported on a balance sheet prepared at this time? (c) What is the total value of the assets of the corporation?

2. Subscribers to the preferred stock of the Regal Manufacturing Company (Question No 1) pay $50,000 to apply on their subscriptions. (a) What entry or entries will this payment require? (b) Give the balances of the accounts in the trial balance after these entries have been posted

3. The W. L. Talbot Company has an authorized capital stock of $1,000,000. Subscriptions have been received for 7,500 shares of stock at the par value of $100. Five thousand of these shares have been paid for in full and have been issued. A 50% payment has been made on the remainder. (a) Give the entries, in journal form, to record these transactions. (b) Prepare a balance sheet to show the results of the transactions.

4. (a) Why is it desirable to show the premium or the discount on capital stock in a separate account? (b) Is Premium on Common Stock an asset, a liability, or a proprietorship account?

5. The Miller Manufacturing Company was incorporated with a capital of $100,000 consisting of 1,000 shares of common stock with a par value of $100. Five hundred shares were subscribed for at $96, cash was received, and the stock was issued. (a) What was the proprietorship of the company at that time?

During the rest of the year the balance of the authorized stock was sold at $110, cash was received, and the stock was issued. (b) What was the proprietorship of the company at that time?

6. During the year the Miller Manufacturing Company (Question No. 5) made a net profit of $8,000, one half of which was paid as a dividend. The net profit for the following year amounted to $18,000, one half of which was paid as a dividend. (a) What was the book value of the stock after the payment of the first dividend? (b) How much did William Drew, the holder of 100 of the shares first issued by the corporation, receive as dividends? (c) What was the book value of his stock after the payment of the second dividend?

7. What effect have the following transactions on the proprietorship of a corporation? on the working capital? on the market value per share?

(a) Declaration of a cash dividend.
(b) Payment of a cash dividend.

8. The Chesterfield Corporation with 1,000 shares of cumulative 5% preferred outstanding passed the regular dividend in December. The accountant set up a liability for the amount of the unpaid dividends. Do you approve? Explain.

9. Distinguish between (a) organization expense and operating expense, (b) earned surplus and capital surplus, (c) declaration of dividends and payment of dividends, (d) cumulative and participating preferred stock.

10. Give the three journal entries leading to the following balance sheet of Dunn and Morley, Inc.

DUNN AND MORLEY, INC.
BALANCE SHEET
NOVEMBER 15, 1950

Cash....................	$160,000	Preferred Stock........	$100,000
Subscriptions Rec. Com..	60,000	Common Stock Subscribed..	100,000
		Premium on Common Stock...............	20,000
	$220,000		$220,000

PROBLEMS

1. The Acme Supply Company was organized on April 1, 1950, with an authorized capital stock of 500 shares of preferred stock, par value $100 and 50,000 shares of common stock, par value $5 The preferred stock was to be sold for cash Subscriptions were taken for the common stock under the following terms 50% cash with subscription, balance within 30 days The stock is issued when fully paid for

The following transactions occurred during April

Apr 1 Received subscriptions for 15 000 shares of common at $6
15 Received subscriptions for 20,000 shares of common stock at par
23 Received cash for 300 shares of preferred at $95 Issued the stock
30 Received cash per agreement for common stock subscriptions of April 1 Issued the stock

Instructions (1) Record the preceding transactions in general journal form and post to "T" accounts The accounts required are Cash, Subscriptions Receivable Common, Preferred Stock, Common Stock, Common Stock Subscribed Discount on Preferred Stock, Premium on Common Stock

(2) Prepare in report form a balance sheet as of April 30

2 Following are the transactions of Carpenter, Inc during 1949, its first year of operations

(a) Received cash for 500 shares of common stock at par ($100) Issued the stock
(b) Acquired the going business of the Harold Corporation Issued 360 shares of common stock at par ($100) in exchange for the following Machinery, $15 000, Buildings $10,000, Land, $6,000, Goodwill, $5 000
(c) Made a profit of $20 000 for the year's operations (debit Cash, $21,900, credit Reserve for Depreciation of Machinery, $1,500, Reserve for Depreciation of Buildings, $400, and Profit and Loss Summary, $20 000)
(d) Made provision for federal income tax payable of $8,000 and closed the balance of Profit and Loss Summary to Earned Surplus
(e) Declared Common Dividend No 1 of $5 a share

The following transactions occurred in 1950

(f) Paid the income tax for 1949
(g) Paid the dividends declared in (e)
(h) Received subscriptions for 500 shares of common stock at par, 50% of the purchase price being paid in cash at the time of subscription
(i) Purchased the going business of the Christy Company for $50,000 in cash Its assets were valued as follows Machinery, $20,000, Buildings, $12,000, Land, $8,000
(j) Made a profit of $40 000 for 1950 (debit Cash $45,000, credit Reserve for Depreciation of Machinery $4,000, Reserve for Depreciation of Buildings $1,000 and Profit and Loss Summary $40,000)
(k) Made provision for Federal income tax payable of $16,000 and closed the balance of Profit and Loss Summary to Earned Surplus

Instructions: (1) Record the above transactions directly in "T" accounts. Identify each debit and each credit with the letter given for that transaction in the list of transactions. The accounts required are: Cash; Subscriptions Receivable Common; Machinery; Reserve for Depreciation of Machinery; Buildings; Reserve for Depreciation of Buildings; Land; Goodwill; Federal Income Tax Payable; Common Dividend Payable (No. 1); Common Stock; Common Stock Subscribed; Earned Surplus; Profit and Loss Summary.

(2) Take a trial balance as of December 31, 1950.

(3) Prepare a balance sheet as of December 31, 1950.

3. The Lakewood Corporation received its charter of incorporation on December 31, 1948. Its authorized capitalization was as follows: 500 shares of 4% cumulative preferred stock, $100 par, and 8,000 shares of common stock, par value $10. During its first two years of operation the following transactions occurred. One fifth of the organization expense was charged against Earned Surplus on December 31 of each year, beginning in 1949.

1949

Jan. 2. Received cash for 250 shares of preferred stock and 4,000 shares of common stock at par. Issued the stock.

15. Received subscriptions for 250 shares of preferred stock and 2,000 shares of common stock at par, 50% of the purchase price being paid in cash at the time of subscription.

Feb. 15. Invested $50,000 in other assets.

Mar. 31. Received in cash the balance due on the preferred and common stock subscribed. Issued the stock.

Apr. 30. The attorney who secured the charter and performed other legal services in connection with organization rendered his bill for $3,000. He was paid in cash.

Dec. 31. Net loss for the first year's operations was $10,000 (debit Profit and Loss Summary; credit Cash). Closed Profit and Loss Summary to Earned Surplus. Charged off one fifth of organization expense to Earned Surplus.

1950

Feb. 15. Sold 1,000 shares of common stock at a discount of $1 a share.

Mar. 21. Invested $30,000 in other assets.

Dec. 31. Net profit for 1950 was $40,000 (debit Cash; credit Profit and Loss Summary). Made provision for federal income tax liability of $12,000 and closed the balance of Profit and Loss Summary to Earned Surplus. Charged off one fifth of organization expense to Earned Surplus.

Instructions: (1) Record the transactions directly in "T" accounts. The accounts required are: Cash; Subscriptions Receivable Preferred; Subcriptions Receivable Common; Other Assets; Organization Expense; Federal Income Tax Payable; Preferred Stock; Preferred Stock Subscribed; Common Stock; Common Stock Subscribed; Discount on Common Stock; Earned Surplus; Profit and Loss Summary.

(2) Take a trial balance as of December 31, 1950.

(3) Prepare a balance sheet as of December 31, 1950.

(4) If dividends were declared for the first time at the end of 1950, and if the entire balance of Earned Surplus was distributed as dividends, how much would the preferred stockholders receive? The common stockholders?

CHAPTER XXIII

CORPORATION SURPLUS

CORPORATION SURPLUS The two chief divisions of corporation surplus, (1) capital surplus and (2) earned surplus, were introduced in the previous chapter. It was stated there that, because of the difference in nature of these two types of surplus, they should be accounted for separately and should not be combined in one item on the periodic statements. The practice of showing a single surplus item on the balance sheet is still widely followed. Even when this is done, it usually represents the total of the balances of several surplus accounts in the ledger of the corporation. These surplus accounts show the special conditions that gave rise to the various surplus items. The surplus accounts of a corporation may generally be divided into two groups: *capital surplus accounts and earned surplus accounts.*

CAPITAL SURPLUS ACCOUNTS Increases in proprietorship of a corporation arising from sources other than earnings of the corporation and not represented by par or stated value of outstanding stock result in capital surplus. Such increases are best considered as additions to the permanent investment of the business and may be credited to special surplus accounts to indicate the origins of the increases in proprietorship. Capital surplus may arise from a number of sources. The principal sources are (1) amounts paid in, (2) revaluation of assets, (3) gifts, and (4) transactions in own stock.

Paid-In Surplus. When stock is issued at a premium, the proprietorship of the corporation is increased by an amount greater than the par value of the capital stock issued. This amount represents *paid-in surplus,* or an additional investment on the part of the owners. It may therefore be properly considered as a part of the capital surplus of the corporation. Although in some cases the account title Capital Surplus is used instead of the title Premium on Common Stock, the latter is preferable since the source of the proprietorship should always be indicated in a surplus account.

Appraisal Surplus. When the value of land or other fixed property has increased and the present value of the fixed asset is to be recorded in the accounts, the value of the asset may be "written up" to corre-

spond to the value determined by a competent outside appraiser. The credit entry is to a special surplus account, such as Surplus from Revaluation. The balance of this account may be considered a part of the capital surplus, and it should be set up in a separate classification called Appraisal Surplus.

Donated Surplus. Sometimes corporations receive gifts of their own stock from stockholders, gifts of land from chambers of commerce, or gifts from other sources. When such a gift is land or similar property, it is appraised and recorded at a fair market value. Since the resulting increase in the proprietorship is not due to earnings of the corporation, it should be recorded as capital surplus. The source of the increase should be indicated by the title of the account, for example, Surplus from Gift of Property.

Treasury Stock Surplus. When a corporation purchases its own stock in the market at less than par, or sells its own stock that it has bought at a price greater than it paid for it, an increase in proprietorship results that is not due to regular operations of the business. If the purchase price is more than par or the selling price is less than par, the result is the opposite, a decrease in proprietorship. These proprietorship changes are shown in a separate account, called Treasury Stock Surplus. These transactions are treated later in this chapter under the heading "Treasury Stock."

EARNED SURPLUS ACCOUNTS The principal source of increase in proprietorship is earnings arising from the normal operations of the corporation. If these earnings are not distributed as dividends, they remain under the heading of Earned Surplus. This earned surplus is available for dividend declaration at any time. The profits of good years may thus become available for dividends in poor years.

If the board of directors wished to make the earnings a permanent part of the proprietorship, it may appropriate a portion of the earned surplus. Such a portion is known as Earned Surplus Appropriated; the remaining balance is known as Earned Surplus Unappropriated. In this case only the balance of Earned Surplus Unappropriated is available for dividend declaration.

Whenever amounts have been appropriated by the board of directors for any purpose, the earned surplus of the corporation is necessarily shown in two main divisions. The chart shown on page 418 indicates the classification of earned surplus.

- Earned Surplus
  - 1 Appropriated (separate accounts)
    - 1 Contractual
      - a Reserve for Bond Sinking Fund
    - 2 Discretionary
      - a Reserve for Plant Extension
      - b Reserve for Inventory Losses
  - 2 Unappropriated (one account)

As indicated in the chart, appropriation of earned surplus may be contractual or discretionary with the board of directors If the corporation has contracted with bondholders to reserve specific amounts out of earnings or earned surplus, the board is required to act in accordance with the contract In other cases, the board acts in accordance with its own best judgment In this latter case, it may reverse itself whenever it sees fit This instability of discretionary reserves leads some accountants to question the entries accounting for the board's resolutions

Appropriations are debited to Earned Surplus Unappropriated and credited to the proper reserve account For example, if the agreement with bondholders requires $20,000 to be appropriated each year, the following entry is made

Dec 31	Earned Surplus Unappropriated	20 000	
	Reserve for Bond Sinking Fund		20,000
	To appropriate earned surplus for a reserve for bond sinking fund		

Or if the board wishes to reserve earnings to double the capacity of the plant over a period of five years at a total cost of $150,000, the following entry would be made each year

Dec 31	Earned Surplus Unappropriated	30 000	
	Reserve for Plant Extension		30 000
	To appropriate earned surplus for a reserve for plant extension		

If a great decline in prices during the next fiscal period is expected, although the inventory is conservatively valued, a part of the accumulated earnings may be set aside by a debit to Earned Surplus Unappropriated and a credit to an account with a descriptive title such as Reserve for Inventory Losses

Amounts set aside from earned surplus as reserves for special purposes should not be confused with reserves for depreciation and for bad debts A surplus reserve represents a part of the proprietorship that is set aside so that it will not be distributed as dividends

Such a reserve may be only temporary; in a later period it may be transferred back to unappropriated surplus and thus be made available for dividends. The equity of the stockholders is not reduced by the creation of the surplus reserve. On the other hand, the reserves for depreciation and for bad debts represent deductions from the values of the corresponding assets and at the same time result in deductions from proprietorship.

CORRECTIONS FOR PREVIOUS PERIODS In spite of every effort to measure accurately the profit or the loss of each given period, there almost always arises the necessity for corrections at a later time. The earned surplus unappropriated account is used in making adjustments that are required by the discovery of errors affecting the profits of previous fiscal periods. The profit or the loss that should be recorded in order to correct the error is not shown in an income or an expense account of the period in which the error has been discovered but is credited or debited to Earned Surplus Unappropriated. In all cases where a correction of an error of a past period is to be made, a careful analysis of the error's effect upon the present surplus figure is necessary.

For example, the bookkeeper of the Burbank Manufacturing Company discovered that during the previous fiscal period the purchase of office equipment costing $1,000 was recorded by a debit to the purchases account instead of to the office equipment account. This error resulted in an overstatement of $1,000 in the cost of goods sold. The gross profit and the net profit were therefore understated by that amount. In order to correct the error, the bookkeeper made the following journal entry:

July 10	Office Equipment	1,000	
	Earned Surplus Unappropriated		1,000
	To correct the error of June 15, at which time the cost of office equipment purchased was charged to Purchases instead of to Office Equipment.		

The correction of such errors in the books of the corporation is similar to the method used in sole proprietorships and partnerships. In the latter instances, however, corrections for previous periods may be made directly in the capital accounts, whereas in corporate accounting Earned Surplus Unappropriated is used.

CASH DIVIDENDS A dividend is ordinarily a distribution of profits to the stockholders. Dividends may be declared annually, although the present tendency is toward quar-

terly dividends A dividend can be declared legally only by the board of directors and ordinarily only out of realized profits The stockholders have no claim upon the profits of a corporation until a dividend has been declared

The policies of corporations with reference to the amount of the profits to be distributed as dividends vary widely Corporations that are conservatively managed limit their cash dividends to take care of economic depressions or unforeseen contingencies Many corporations have followed the policy of limiting cash dividends up to about 60 per cent of the total amount available They have in this way built up a considerable amount in the earned surplus accounts

When a dividend is declared by the board of directors it becomes a liability of the company to the stockholders and must be recorded as such at once It is customary to give each dividend a separate number If a corporation paid quarterly dividends regularly for ten years, the dividends of the eleventh year would be numbered 41, 42 43 and 44 respectively A separate dividend check is issued to each stockholder from a special dividend checking account set up for the amount of the entire dividend

To illustrate the entries required in the declaration of a dividend the following facts are assumed on December 31 1950 the earned surplus unappropriated account has a credit balance of $65 500 after the profit and loss summary account balance of $25 500 has been closed into it a dividend of $6 000 is declared on preferred stock and a dividend of $8 000 on common stock The entries required and the accounts after these entries have been posted are shown below and on the opposite page

Dec 31	Earned Surplus Unappropriated	14 000	
	Preferred Dividend Payable No 4		6 000
	Common Dividend Payable No 2		8 000
	Declared Preferred Dividend No 4 of $6 a share payable on Jan 17 1951 to stockholders of record on Jan 15 1951 and Common Dividend No 2 of $8 a share payable on Jan 18 1951 to stockholders of record on Jan 16 1951		

PREFERRED DIVIDEND PAYABLE NO 4

					1950 Dec	31		J9	6 000

COMMON DIVIDEND PAYABLE NO 2

					1950 Dec	31		J9	8 000

EARNED SURPLUS UNAPPROPRIATED

1950 Dec.	31		J9	14,000	1949 Dec.	31	Balance	√	40,000
					1950 Dec.	31		J9	25,500

Three dates attach themselves to each dividend declaration: (1) the date of declaration, (2) the date of stockholders of record, and (3) the date of payment. Since corporate shares are so freely transferable, it is necessary to know which shareholders are entitled to the dividend checks. The law requires that the date of record follow the date of declaration, in order that the parties to transfers may know the dividend situation at all times. In the preferred and common dividends illustrated above, the dates of record were January 15 and January 16 respectively, both following the date of declaration.

Although there is no contractual obligation on the part of a corporation to pay a dividend on cumulative preferred stock until it has been declared, it is considered good policy to show on the balance sheet the amount of cumulative preferred dividends in arrears. This may be done by adding to the balance sheet a footnote stating the amount of the dividends in arrears.

STOCK DIVIDENDS Dividends declared need not be payable in cash. They may be paid in various forms. They are sometimes paid in the stock of the corporation. Such dividends are known as *stock dividends*. For example, if a corporation has earned surplus of $100,000 and wishes to distribute this amount to its stockholders in the form of stock, the entries to record the declaration and the payment of this dividend are:

Mar. 5	Earned Surplus Unappropriated	$100,000	
	Stock Dividend Payable		$100,000
	To record the declaration of a stock dividend, payable Mar. 25.		
25	Stock Dividend Payable	100,000	
	Common Stock		100,000
	To record the payment of the stock dividend.		

A stock dividend has no effect on the total equity of the stockholders. The total proprietorship of the stockholders is merely divided into a greater number of parts. If, in the preceding example, a 100 per cent stock dividend were declared, the number of shares of stock outstanding after the payment of the dividend would be doubled. Each stockholder would then own twice as many shares as he had

previously, but the book value of each of his shares would be only one half of the previous book value. From the point of view of the corporation, a stock dividend results in a permanent appropriation of surplus. Once the additional stock has been issued, it becomes a part of the capital investment of the stockholders and that part of the surplus is no longer available for cash dividends.

Stock dividends are declared only on common stock outstanding, unless there is participating preferred stock. Nonparticipating preferred stockholders have no further interest in earnings after they have received dividends at the rate specified in the stock certificate.

The proprietorship section of the balance sheet of a corporation before and after a 100 per cent stock dividend is shown below:

Before declaration of Stock Dividend

PROPRIETORSHIP

Capital Stock.	
Common Stock (1,000 shares, $100 par)	$100,000
Surplus	
Earned Surplus Unappropriated ..	150,000
Total Proprietorship	$250,000

After declaration of 100% stock dividend

PROPRIETORSHIP

Capital Stock	
Common Stock (2,000 shares, $100 par)	$200,000
Surplus	
Earned Surplus Unappropriated ..	50,000
Total Proprietorship	$250,000

A holder of 10 shares of stock with a book value of $250 a share before the stock dividend would have 20 shares of stock with a book value of $125 a share after the dividend.

THE STATEMENT OF EARNED SURPLUS The statement of earned surplus provides a summary of the corrections applicable to the earnings of previous fiscal periods and of transactions performed by the board of directors The statement of earned surplus also serves to tie together the profit and loss statement and the balance sheet. A statement showing in detail the changes in the surplus of Wells and White, Inc. is illustrated on the following page.

The statement of earned surplus is divided into two major parts: (1) entries affecting Earned Surplus Unappropriated; and (2) entries

WELLS AND WHITE, INC.
Statement of Earned Surplus
For Year Ended December 31, 1950

Earned Surplus Unappropriated:			
Unappropriated Balance, Jan. 1, 1950			$450,000
Corrections Applicable to Past Period:			
Additions:			
Inventory Omissions, Dec. 31, 1949		$ 15,000	
Capital Expenditures Charged as Expenses		9,000	
Sundry Credits		1,000	25,000
			$475,000
Deductions:			
Underestimated Depreciation		$ 40,000	
Additional Federal Income Tax for 1949		3,000	
Sundry Debits		2,000	45,000
Adjusted Earned Surplus Unappropriated, Jan. 1, 1950			$430,000
Current Operations:			
Net Profit for 1950		$230,000	
Less Provision for Federal Income Tax		90,000	
Addition to Earned Surplus Unappropriated			140,000
			$570,000
Less:			
Cash Dividends on Preferred Stock		$ 30,000	
Cash Dividends on Common Stock		50,000	
Write-off of Organization Expense		10,000	
Deductions from Earned Surplus Unappropriated			90,000
Earned Surplus Unappropriated before Reserves			$480,000
Appropriations:			
Reserve for Bond Sinking Fund		$ 20,000	
Reserve for Plant Extension		30,000	
Total Appropriations			50,000
Balance of Earned Surplus Unappropriated, Dec. 31, 1950			$430,000
Earned Surplus Appropriated:			
Reserve for Bond Sinking Fund, Jan. 1, 1950	$80,000		
Add 1950 Appropriation (see above)	20,000		
Reserve for Bond Sinking Fund, Dec. 31, 1950		$100,000	
Reserve for Plant Extension, Jan. 1, 1950	$60,000		
Add 1950 Appropriation (see above)	30,000		
Reserve for Plant Extension, Dec. 31, 1950		90,000	
Total Earned Surplus Appropriated			190,000
Balance of Earned Surplus Appropriated and Unappropriated, December 31, 1950			$620,000

Statement of Earned Surplus

affecting Earned Surplus Appropriated. The first section includes correcting entries, both debits and credits; dividend declarations, preferred and common; write-offs of any assets chargeable to surplus; and contractual and discretionary appropriations. The second section shows the increases in the earned surplus appropriated accounts brought down from the first section. The final figure gives the total of all earned surplus accounts as of the date of the balance sheet.

The statement of earned surplus reports primarily the activities of the board of directors in declaring dividends, appropriating surplus, and writing off intangible assets. These activities affect the accounts of a corporation and are not found in the sole proprietorship or the partnership; the statement of earned surplus, therefore, is only to be found in corporation accounting.

METHOD OF HANDLING NO-PAR-VALUE STOCK When no-par-value stock is sold, the amount received is credited to the capital stock account. Since the stock does not have a par value, neither premium nor discount on stock needs to be considered. For example, if the R. F. Monroe Corporation is authorized on June 1, 1949, to issue 4,000 shares of no-par-value stock and on that date sells 2,000 shares of this stock at $27 a share, the opening entries are:

June 1	The R. F. Monroe Corporation is incorporated with an authorized capital stock of 4,000 shares having no-par value		
1	Cash	54,000	
	Common Stock		54,000
	Sold and issued 2,000 shares of no-par-value stock at $27 a share		

If a balance sheet was prepared after these entries had been posted, the proprietorship section would be:

PROPRIETORSHIP

Common Stock Outstanding (No-Par Value) 2,000 shares*	$54,000

*No-Par Value Stock Authorized, 4,000 shares

When subscriptions to stock of no-par value are entered in the books, they are recorded at the selling price of the stock and the credits to Common Stock Subscribed are entered at the same amount.

Under the laws of some states the directors of a corporation may specify that a portion of the payment for stock of no-par value is to be credited to Common Stock and the remainder to Premium on Common Stock. The portion to be credited to Common Stock is known as the *stated value*. In the previous illustration the stated value might have been $20 a share. The entry would then have been:

June 1	Cash	54,000	
	Common Stock		40,000
	Premium on Common Stock		14,000
	Sold 2,000 shares of no-par-value stock at $27 a share. The stated value of the stock is $20 a share.		

The accounting for no-par-value stock with a stated value is similar to the accounting for par-value stock.

TREASURY STOCK When a corporation reacquires some of its own stock from its stockholders either by purchase or gift, such stock is known as treasury stock. Since treasury stock has been issued for value by the corporation, it can be sold at any price without the usual limitations on discount. Treasury stock should be distinguished from unissued stock, since the latter has never been issued by the corporation and therefore has no accountable value.

Outstanding capital stock may be donated to the corporation by existing stockholders in order that working capital can be obtained through its sale. This practice is occasionally used by corporations that have issued all their stock in payment for property. The following illustration will show the method of recording such transactions involving treasury stock.

The stockholders of a corporation donate 600 shares of common stock having a par value of $100 a share. The entry to record the receipt of the stock by the corporation on February 20 is:

Feb. 20	Treasury Stock Common	60,000	
	Donated Surplus		60,000
	Received a donation of 600 shares of common stock, par value $100, from stockholders.		

If all this treasury stock is sold at par on March 25, the following entry will be made:

Mar. 25	Cash	60,000	
	Treasury Stock Common		60,000
	Sold 600 shares of treasury stock at par.		

After these entries have been posted, the donated surplus account will have a balance of $60,000, which is the profit derived from the donation and the sale of the treasury stock. This profit may be considered as part of the capital surplus of the corporation.

Frequently the stock that has been donated to a corporation cannot be sold at par. If, in the case given above, the stock were sold at $90 a share, the entry would be as shown on the following page:

Mar 25	Cash	54 000	
	Donated Surplus	6 000	
	Treasury Stock Common		60 000
	Sold 600 shares of treasury stock par value $100 at $90 a share		

The donated surplus account would then have a balance of $54 000 which would be the increase in proprietorship resulting from the gift

If only 300 shares had been sold at $90 a share, the entry would have been as follows

Mar 25	Cash	27 000	
	Donated Surplus	3 000	
	Treasury Stock Common		30 000
	Sold 300 shares of treasury stock par value $100 at $90 a share		

The donated surplus account is credited at the par value of the stock until the stock is sold If the treasury stock is sold at a discount the amount of the discount is debited to Donated Surplus thus lowering the balance of that account If donated stock is sold at a premium the donated surplus account is credited for the amount of the premium in order to show the increased value of the gift to the corporation

More frequently a corporation purchases its own stock In this case the treasury stock account is debited for the par value of the stock purchased and credited for the par value of the stock sold Any difference between the par value of the stock and the purchase price is debited or credited to an account called Treasury Stock Surplus This account is a capital surplus account When the stock is sold the par value is credited to the treasury stock account and any difference between the par value and the selling price is debited or credited to Treasury Stock Surplus

For example a corporation purchases 500 shares of its own preferred stock (par value $100) for $40 000 The entry to record this purchase on April 15 is

Apr 15	Treasury Stock Preferred	50 000	
	Cash		40 000
	Treasury Stock Surplus		10 000
	Purchased 500 shares of stock par value $100 from the stockholders at $80 a share		

If the stock is sold on May 10 for $55 000 the entry to record the transaction is

May 10	Cash	55 000	
	Treasury Stock Preferred		50 000
	Treasury Stock Surplus		5 000
	Sold 500 shares of treasury stock purchased on April 15 at $110 a share		

The result of these two transactions is to increase the capital surplus account Treasury Stock Surplus $15,000. If the sale had been at $90 a share, the credit balance in Treasury Stock Surplus would have been $5,000. If the stock had been sold at less than cost, say at $70 a share, the treasury stock surplus account would have a debit balance and would be a subtraction from the other capital surplus account balances.

The treasury stock account is a valuation account affecting the stock issued account. The difference between stock issued and treasury stock should show stock outstanding. For example, assume that The Faries Corporation had issued 1,000 shares of $100 par preferred stock and 1,000 shares of $100 par common stock, had later purchased 200 shares of the common stock at $80, and had an earned surplus of $5,000. These facts would appear on the balance sheet as follows:

PROPRIETORSHIP

Capital Stock:				
Preferred Stock (issued 1,000 shares)		$100,000		
Common Stock (issued 1,000 shares)	$100,000			
Less Treasury Stock Common (200 shares)	20,000			
Common Stock Outstanding (800 shares)		80,000		
Total Capital Stock Outstanding			$180,000	
Surplus:				
Capital Surplus:				
Treasury Stock Surplus		$ 4,000		
Earned Surplus		5,000		
Total Surplus			9,000	
Total Proprietorship				$189,000

If the treasury stock in the previous case had been purchased at $110 a share, the balance sheet would appear as shown on the following page.

Treasury stock is considered by some corporations to be an asset in the form of a temporary investment and is reported as such on the balance sheet. This is particularly true when the stock has been purchased for resale. For example, a corporation may purchase its own stock on the open market for the purpose of selling it later to employees on the installment plan. It is considered more desirable, however, to treat treasury stock as a minus proprietorship item, or, in other words, as a deduction from the capital stock outstanding. No dividends of any type are declared on treasury stock.

PROPRIETORSHIP

Capital Stock				
Preferred Stock (issued 1 000 shares)		$100 000		
Common Stock (issued 1 000 shares)	$100 000			
Less Treasury Stock Common (200 shares)	20 000			
Common Stock Outstanding (800 shares)		80 000		
Total Capital Stock Outstanding			$180 000	
Surplus				
Earned Surplus		$ 5 000		
Capital Surplus				
Treasury Stock Surplus (deficit)		2 000		
Net Surplus			3 000	
Total Proprietorship				$183 000

QUESTIONS

1 The United Corporation (a) issues at $110 a share, 1,000 shares of common stock having a par value of $100, (b) revalues at $500,000 its building the value of which is recorded at $400,000, (c) accepts from the Beverly Chamber of Commerce a gift of a plot of ground that is appraised at $100 000 and on which a branch plant is to be erected Give the entry to record each of the transactions. What is the effect of each transaction on the proprietorship of the corporation?

2 The earnings before income taxes of the United Corporation for the current year are $250,000 The corporate income tax rate is 40% The board of directors (a) appropriates $10,000 in accordance with an agreement with the bondholders (b) appropriates $25,000 to be used for the extension of the plant, and (c) declares a quarterly dividend of $2 a share on outstanding capital stock of 10,000 shares Give the entries necessary to record these transactions.

3 At three previous times during the current year the board of directors of the United Corporation (Question No 2) declared a quarterly dividend of $2 a share How much was Earned Surplus Unappropriated increased during the year?

4 The General Manufacturing Co declares quarterly dividends of $1 a share on outstanding common stock of $500,000, par $100 What entry is required to record (a) the declaration of each dividend? (b) the payment of each dividend?

5 The board of directors of The General Manufacturing Co declares a 50% stock dividend (a) Give the entry required by this transaction. (b) If A holds 20 shares of the stock of this company, how many shares will he receive as a dividend?

6. The proprietorship of the Brown Corporation is shown as follows:

Common Stock ($100 par)	$50,000
Premium on Common Stock	4,000
Earned Surplus Unappropriated	30,000

A 20% stock dividend is declared. (a) Give the entries to record the declaration and payment of the dividend. (b) What was the book value per *share* before the declaration of the stock dividend? after the issue of the dividend? (c) What was the effect of the issue of the stock dividend on the ownership equity of each stockholder in the corporation?

7. The Pacific Transportation Company has 10 stockholders, each owning 100 shares of stock having a par value of $100 a share. The surplus is $20,000. Each stockholder donates to the corporation 20% of his stock. What is the book value of each share and of the total shares held by each stockholder (a) before the donation? (b) after the donation?

8. The following balance sheet is a condensed form of that prepared for the Swanson Manufacturing Co. at the end of a fiscal year:

SWANSON MANUFACTURING CO.
BALANCE SHEET
MAY 31, 1950

Assets		Liabilities and Proprietorship	
Current Assets	$100,000	Current Liabilities	$ 50,000
Treasury Stock	20,000	Common Stock	100,000
Fixed Assets	80,000	Donated Surplus	20,000
Goodwill	30,000	Paid-in Surplus	30,000
		Earned Surplus Unappropriated	30,000
Total Assets	$230,000	Total Liab. and Prop.	$230,000

(a) Explain the nature and the possible origin of each item. (b) How much is available for distribution as dividends?

PROBLEMS

1. The balance sheet of the Emerson Corporation on June 30, 1949, consisted of: Cash, $35,000; Merchandise Inventory, $40,000; Common Stock ($25 par value), $75,000. The following transactions occurred during the fiscal year ended June 30, 1950:

(a) Sold 400 shares 5% preferred stock, par value $100, for cash, $40,000.
(b) Operations for the year were reflected in the following summary:

Cash	25,000	
Merchandise Inventory	15,000	
Profit and Loss Summary		40,000

(c) Made provision for federal income tax liability of $7,500 and closed the balance of Profit and Loss Summary to Earned Surplus Unappropriated
(d) Declared preferred stock dividend No 1 of $5 a share and common stock dividend No 1 of $4 a share
(e) Paid the dividends
(f) Appropriated $2,500 of surplus for inventory losses

Instructions (1) Record the June 30, 1949, balances and the transactions directly in "T" accounts Identify each debit and each credit with the letter given for that transaction in the list of transactions The accounts required are Cash, Merchandise Inventory, Federal Income Tax Payable, Preferred Dividend Payable No 1, Common Dividend Payable No 1, Preferred Stock, Common Stock, Reserve for Inventory Losses, Earned Surplus Unappropriated, Profit and Loss Summary

(2) Prepare a trial balance as of June 30, 1950

2 The Kruly Corporation was organized on June 1, 1950, with authorized capital stock of 6,000 shares of common, $100 par The following transactions took place during the first month

June 1 Common stock (1 500 shares) was given in exchange for assets as follows Inventory, $60 000, Buildings, $50,000, Store Equipment, $30,000, and Land, $10,000
2 Subscriptions were received for 2 000 shares of common stock at $110, with 50% cash received at the time of subscription
3 In order to provide additional working capital, common stock holders donated 500 shares of common stock to the corporation
4 Two hundred shares of treasury stock were sold to the public at $90
8 The assets of a going company were accepted in payment for 500 shares of common stock The assets received were valued as follows Buildings $25 000, Land, $15,000, and Goodwill $10,000
19 Received the balance due on the common stock subscribed Issued the stock
25 Had the company's buildings appraised The appraiser estimated that the buildings should be valued at $100,000 The adjustment was made on the records to revalue the buildings account

Instructions (1) Record the foregoing transactions in "T" accounts The accounts required are Cash Subscriptions Receivable Common, Merchandise Inventory, Store Equipment, Buildings, Land, Goodwill, Common Stock, Treasury Stock Common Common Stock Subscribed, Premium on Common Stock, Surplus from Revaluation, Donated Surplus

(2) Prepare a balance sheet as of June 30, 1950

3 The proprietorship section of the balance sheet of the Pacific Corporation as of December 31, 1949, is given at the top of the opposite page

The following transactions affecting the proprietorship accounts took place during 1950

Jan 15 The following errors and omissions for 1949 were discovered during the annual audit just completed
(a) On September 15, 1949, the company purchased 1,000 shares of its own common stock on the open market at $95 The discount was credited to Earned Surplus Unappropriated

PROPRIETORSHIP

Capital Stock:		
Common Stock ($100 par)...........	$600,000	
Less Treasury Stock Common	100,000	
Total Capital Stock Outstanding..........		$500,000
Surplus:		
Earned Surplus Appropriated:		
Reserve for Plant Extension.	$ 75,000	
Earned Surplus Unappropriated	100,000	
Total Surplus..........		175,000
Total Proprietorship....		$675,000

(b) New machinery with an estimated life of 20 years was purchased on January 2, 1949. The cost of installation was $2,000 and the premium on a 2-year insurance policy was $400. These last two items were charged to expense accounts and were closed to Profit and Loss Summary. (Depreciation and expired insurance must be allowed for in the correcting entry.)

(c) No entry was made on the books to record a stock dividend of 10% on common stock outstanding (5,000 shares). Stock representing this dividend had been issued on December 15, 1949.

Dec. 31. The following business was transacted at the meeting of the board of directors:

(a) The $250,000 net profit for 1950, reflected in the balance of the profit and loss summary account, is to be distributed as follows:

Provision for federal income tax payable, $100,000.
Balance of the profit and loss summary account to be closed to Earned Surplus Unappropriated.
Declared cash dividend (No. 7) of $15 a share on the common stock outstanding (5,500 shares), payable January 5, 1951.

(b) The reserve for plant extension is to be increased by $75,000.

(c) Organization expense of $1,000 is to be written off.

Instructions: (1) Open "T" accounts for the following capital stock and surplus accounts: Common Stock; Treasury Stock Common; Treasury Stock Surplus; Reserve for Plant Extension; Earned Surplus Unappropriated. Enter the balances shown in the proprietorship section of the Pacific Corporation's balance sheet as of December 31, 1949.

(2) Prepare general journal entries to record the transactions. Post these entries to the proprietorship accounts only.

(3) Prepare the proprietorship section of the balance sheet as of December 31, 1950.

(4) Prepare a statement of earned surplus for the year ended December 31, 1950.

CHAPTER XXIV

CORPORATION STOCKS AND BONDS

CORPORATION CAPITAL AND CORPORATION EARNINGS When money is invested in a corporation, the corporation is expected to earn profits out of which dividends will be paid to the investors In previous chapters corporation capital was shown to be contributed largely by stockholders, who participated in corporate profits through dividend declaration Corporations might issue two kinds of stock, preferred and common, the preferred with a prior but limited claim on earnings and the common with a secondary but unlimited claim on earnings

Because of the ease of transferring stock and the availability of earnings through dividends, corporations have found investors ready to exchange their money for shares of stock Some corporations have absorbed the property of competitors in exchange for shares of their own stock The great business of investment banking and the huge volume of trading on the stock exchanges give evidence of the present-day interest in corporation stocks The corporation has become the great capital assembling unit of modern business

Since some investors prefer a guaranteed income in the form of interest and an assurance of the return of the investment at some date in the future, many corporations have sought this form of capital through the issuance of corporate bonds Such capital is, for the corporation, borrowed capital and involves periodic interest payments together with ultimate return of the principal Because interest payments are more certain and because creditors have prior claim on corporation assets, the cost of borrowed capital is less than the cost of capital obtained by selling preferred and common stock Interest on bonds is an expense of the corporation and must be paid before income tax and dividends

To illustrate the effect of obtaining capital by the methods discussed above, assume that each of three corporations has capital of $4,000,000 and that this capital has been obtained as follows:

CORPORATION A.	40,000 shares of $100 par common stock
CORPORATION B	20,000 shares of $100 par 5% preferred stock. 20,000 shares of $100 par common stock
CORPORATION C	$2,000,000 of 4% bonds 10,000 shares of $100 par 5% preferred stock. 10,000 shares of $100 par common stock

Assume also that each corporation has earnings, before the payment of bond interest, of $500,000 and that 40 per cent of the net profit is paid as income tax. The following table then shows the calculation of the earnings per share available for the common stockholders of each corporation.

	CORPORATION A	CORPORATION B	CORPORATION C
CAPITAL STRUCTURE:			
4% Bonds			$2,000,000
5% Preferred Stock, $100 par		20,000 shares	10,000 shares
Common Stock, $100 par	40,000 shares	20,000 shares	10,000 shares
Earnings	$500,000	$500,000	$500,000
Less Interest on Bonds	..	....	80,000
Balance	$500,000	$500,000	$420,000
Less Provision for Income Tax (40% of profit after bond interest)	200,000	200,000	168,000
Balance	$300,000	$300,000	$252,000
Dividends on Preferred Stock	.	100,000	50,000
Available for Dividends on Common Stock	$300,000	$200,000	$202,000
Earnings per Share of Common Stock	$7.50	$10	$20.20

In Corporation A, the earnings per share of common stock are $7.50. In Corporation B, half of the capital is obtained from 5 per cent preferred stock; the balance available for the common stockholders is therefore increased to $10 a share. In Corporation C, half of the capital is obtained from 4 per cent bonds and the amount paid in bond interest is not subject to income tax; as a result, the earnings per share of common stock are increased to $20.20.

This table shows the advantage to common stockholders of having corporation capital obtained through bonds and preferred stocks whenever the corporation earns on an average more than the cost of bonds or the return on preferred stock. But, if the average earnings are less than the interest rate on bonds or the return on preferred stock, the common stock carries the risk of loss of return. Assume that in the previous examples the annual earnings of each corporation had been only $170,000 before bond interest and that the income tax rate continued at 40 per cent. The earnings available for common stockholders would then have been as shown on page 434.

	Corporation A	Corporation B	Corporation C
Capital Structure·			
4% Bonds			$2,000,000
5% Preferred Stock, $100 par		20,000 shares	10,000 shares
Common Stock, $100 par	40,000 shares	20,000 shares	10,000 shares
Earnings	$170,000	$170,000	$170,000
Less Interest on Bonds			80,000
Balance	$170,000	$170,000	$ 90,000
Less Provision for Income Tax (40% of profit after bond interest)	68,000	68,000	36,000
Balance	$102,000	$102,000	$ 54,000
Dividends on Preferred Stock		100,000	50,000
Available for Dividends on Common Stock	$102,000	$ 2,000	$ 4,000
Earnings per Share of Common Stock	$2 55	10¢	40¢

BONDS PAYABLE A bond is a promise under seal to pay a definite sum of money at a stated time and to pay interest at a stipulated rate. Certain property is usually pledged as security for the payment of both the principal and the interest, but bonds may be issued without being secured by a particular piece of property or by a mortgage.

The purpose of the bonds payable account is to show the face value of the bonds outstanding against the corporation. This account is credited with the face value of the bonds issued and debited with the face value of all bonds redeemed or otherwise retired. When a corporation has several issues of bonds outstanding, a separate account for each issue is maintained.

The bonds payable account should give the life of the bonds, the date they come due, the interest rate, and how often interest is paid. If a corporation has only two or three issues, each may very well be shown separately on the balance sheet. But if it has many issues, they may be combined into one item on the balance sheet and the detail may be given in a supporting schedule. Bonds payable accounts are reported on the balance sheet as fixed liabilities.

Bonds are classified in various ways. As to the mode of interest payment, they may be *registered* or *coupon bonds*. If registered, the interest check is made out to the registered party; if coupon, the

coupon is clipped and sent in for payment. As to security, bonds may be *secured*, as explained below, or *unsecured*. As to payment of principal, they may call for payment of a definite amount at a definite date in the future, or they may provide for payment at a time determined by lot, or they may be convertible into some other form of security at the option of the corporation or the holder.

A secured bond is one of a series, the payment of which is assured by giving bondholders a preferred claim on some particular asset. This asset may be a building, it may be the entire plant including buildings and machinery, or it may be stocks or bonds owned by the debtor corporation.

If bonds are sold before interest begins to accrue, the entry is a simple one debiting Cash and crediting Bonds Payable. If the sale occurs later, it is customary to charge the buyer with the accrued interest. For example, assume that $100,000 worth of 4 per cent bonds dated January 1, 1949, were sold on April 1, 1949. Three months' interest at 4 per cent would have accrued between January 1 and April 1. The entry on the records of the selling corporation would be:

April 1 Cash	101,000	
Bonds Payable		100,000
Bond Interest Expense		1,000
Sold $100,000 worth of 4% bonds, dated Jan. 1 at par plus accrued interest.		

BOND PREMIUM AND DISCOUNT Bonds are sometimes sold for more than their face value. If a business has unusually high credit or offers an exceptionally high rate of interest, buyers may be willing to pay more than the face value for its bonds. For example, on January 2, 1949, Bland & Company sell $100,000 worth of bonds, which are due in five years and bear 6 per cent interest, at $105. The transaction is recorded as follows:

Jan. 2 Cash	105,000	
Bonds Payable		100,000
Premium on Bonds Payable		5,000
Sold $100,000 worth of five-year 6% bonds at 105.		

The investors paid this premium because they were willing to lend money to the corporation at less than the contract rate. In other words, the prevailing interest rate is less than the contract rate for this particular issue of bonds. The adjustment to the actual yield of the bonds so that the investors will receive only the prevailing rate of return is effected by having the investors pay in advance for the privilege of receiving a return in excess of the prevailing rate. Bland & Company

have incurred two liabilities one to pay the face value of the bonds ($100,000) in five years, and the other to pay interest at a higher rate than the prevailing rate

Since the bond premium has been received because the rate of interest to be paid is higher than the prevailing rate, it may be considered as a liability At the time of each interest payment the corporation will pay to the bondholders interest at the contract rate Not all of this payment, however, will represent actual interest cost to the corporation, as a portion of the premium already received may be considered as an offset against the interest payment

The nature of bond premium can be illustrated by emphasizing the movement of cash incident to the bond issue When a premium is received on bonds issued the movement of cash inward is that much greater than the movement of cash outward when the bonds are paid The interest payments during the life of the bonds must absorb this difference

In the transaction above Bland & Company received $105,000 in cash at the time the bonds were sold During the life of the bonds the corporation pays $6 000 a year as interest or a total of $30 000 When the bonds come due at the end of the fifth year, the corporation pays the bondholders the principal amount of $100 000 The cash account reflecting the bond transactions is shown below

CASH

Cash received from sale of 6% bonds	105 000	Cash paid for interest over five years	30 000
		Cash paid for principal	100 000

The result is a net decrease in cash over the life of the bonds amounting to $25 000 which is the cost of the bond deal Distributed over five years this gives an annual cost of $5 000, or 5 per cent, on the value of bonds outstanding

Bonds may also be sold at a discount For example, on January 2 1949, Bland & Company sell five-year, 4 per cent bonds with a face value of $100,000 at $95 This transaction is recorded as follows

Jan 2	Cash	95 000	
	Discount on Bonds Payable	5 000	
	Bonds Payable		100 000
	Sold $100 000 worth of five year 4% bonds at 95		

The discount on the bonds represents a deferred charge to interest cost The corporation has contracted to repay at maturity an amount greater than it received in cash In return, however, it will pay at the

end of each year interest at a lower rate than the prevailing one. The discount may be considered as analogous to interest paid in advance when a note is discounted.

In the transaction above, Bland & Company received $95,000 in cash at the time the bonds were sold. During the life of the bonds, the corporation pays $4,000 a year as interest, or a total of $20,000. When the bonds come due at the end of the fifth year, the corporation pays the bondholders the principal amount of $100,000. The cash account reflecting the bond transactions is shown below:

CASH

Cash received from sale of 4% bonds..............	95,000	Cash paid for interest over five years..............	20,000
		Cash paid for principal....	100,000

The net cash difference here is, as in the bonds sold at a premium, $25,000, or $5,000 a year. This amounts to 5 per cent on the amount issued.

AMORTIZATION OF BOND PREMIUM AND BOND DISCOUNT The bond premium and the bond discount accounts should be written off over the life of the bonds. The amount of the annual write-off is an adjustment of the annual interest expense.

In the case of the five-year, 6 per cent bonds sold at a premium of $5,000, the annual write-off is $1,000. The entry for the payment of the annual interest is:

Dec. 31	Premium on Bonds Payable....................	1,000	
	Bond Interest Expense	5,000	
	Cash....................................		6,000
	To record the payment of interest at 6% on the bonds outstanding and the amount of the premium that offsets this payment.		

In the case of the five-year, 4 per cent bonds sold at a discount of $5,000, the annual write-off of $1,000 increases the charge to Bond Interest Expense. The entry for the payment of the annual interest is:

Dec. 31	Bond Interest Expense	5,000	
	Cash....................................		4,000
	Discount on Bonds Payable..................		1,000
	To record the payment of interest at 4% on the bonds outstanding and the amount of the discount that applies to this payment.		

In the preceding illustrations the amortization of bond premium and bond discount was recorded in connection with the bond interest

payment. An alternate method postpones the amortization entry until the end of the fiscal period when it is shown as an adjusting entry. A single adjusting entry can summarize for the year all the adjustments for all bond interest payments. For example, a corporation might have outstanding two bond issues providing for quarterly payment of interest to bondholders. In place of eight entries in the bond valuation accounts, one made at the time of each interest payment, one adjusting entry could summarize the effect on the bond premium or bond discount accounts.

BOND PREMIUM AND BOND DISCOUNT ON THE BALANCE SHEET The accounts with bond premium and bond discount may be considered as valuation accounts affecting bonds payable. If that is done, the premium on bonds payable for the preceding illustration would appear on the balance sheet as follows:

Fixed Liabilities		
6% Bonds Payable (Due December 31, 1953)	$100,000	
Premium on Bonds Payable	4,000	$104,000

Discount on Bonds Payable would similarly be attached to the bonds payable account and would be shown on the balance sheet as a deduction.

Many accountants consider it better practice to separate the bond premium and bond discount accounts from the bonds payable account on the balance sheet. The bonds payable account then appears at face value. Discount on Bonds Payable is shown on the asset side of the balance sheet as a deferred charge to expense. Premium on Bonds Payable is shown as a deferred credit to income on the liability side.

BOND SINKING FUND When bonds are issued, it is frequently with the provision that a definite amount is to be set aside each year to provide for their retirement at maturity. The amounts set aside form a *sinking fund*. The total amount of this fund should, upon the maturity of the bonds, equal the face value of the bonds. The fund may be in cash, although it consists more commonly of investments in marketable securities. The control of this fund may be in the hands of a third party known as a trustee.

When an amount is transferred to the sinking fund, an account called Bond Sinking Fund is debited and the cash account is credited. For example, the Royal Manufacturing Company issues 20-year bonds amounting to $100,000 with the provision that $5,000 is to be set aside in each of the 20 years to provide a sinking fund for the retire-

ment of the bonds at maturity. The entry to record the annual transfer of an amount to this fund is:

Dec. 31 Bond Sinking Fund.	5,000	
Cash....................................		5,000
To transfer to the sinking fund for bonds an amount equal to one twentieth of the face value of the bonds.		

In the entry above, no provision is made for an increase in the sinking fund through investment by the trustee. Any earnings of the fund from investment might be used to decrease the amount of the annual payment into the fund. The one important item is that the fund be large enough to pay off the bonds when they come due. Thus there will be no drain on the current asset Cash at that time. The entry for the payment of this bond issue at the end of the twentieth year is:

Dec. 31 Bonds Payable.............................	100,000	
Bond Sinking Fund.........................		100,000
Paid the bonds outstanding.		

The balance of the bond sinking fund account should be reported on the balance sheet as an asset under the heading "Investments."

BOND SINKING FUND RESERVE In order to give added assurance that earnings will not be paid to stockholders as dividends, to the disadvantage of bondholders, the bond issue may provide that a reserve for the bond sinking fund shall be established out of profits. This reserve is established to reduce the amount of earned surplus available for dividends and thus to make greater the security back of the bonds. An entry must therefore be made to transfer from the earned surplus unappropriated account to a new account, called Reserve for Bond Sinking Fund, a part of the profits equal to the amount transferred to the bond sinking fund. For example, if, in the case of the Royal Manufacturing Company, a reserve for the bond sinking fund is established from profits, the following entry, in addition to the entry at the top of this page showing the annual transfer of an amount to Bond Sinking Fund, must be made each year:

Dec. 31 Earned Surplus Unappropriated..............	5,000	
Reserve for Bond Sinking Fund..............		5,000
To transfer a part of the earned surplus to the reserve for bond sinking fund.		

The reserve for bond sinking fund account is an earned surplus appropriated account, as explained in the preceding chapter. During the twenty years there will have been transferred to this account

$100,000 This means that this amount of earnings has been unavaila ble for dividends

It will be observed that the reserve for the bond sinking fund has no direct relation to the bond sinking fund itself, but that its use is simply a means of insuring an increasing security back of the bonds After the bonds have been paid, the reserve is no longer necessary It can therefore be transferred to Earned Surplus Unappropriated, and this part of the profits can be distributed as dividends or used in any other way that the board of directors may choose The entry to transfer the reserve to the earned surplus unappropriated account is shown below

Dec 31	Reserve for Bond Sinking Fund	100 000	
	Earned Surplus Unappropriated		100 000
	To transfer the reserve to the earned surplus unappropriated account		

LONG-TERM NOTES Corporations often issue notes to obtain fixed capital in place of bonds These notes may be for a period of two to five years, anticipating a later bond issue when the bond market is more favorable Or they may be for longer periods, up to twenty-five years to avoid the expense of a bond issue when funds are available from financial institutions such as life insur ance companies For example, if funds are obtained from three or four large life insurance companies with cash to invest for long periods the transaction is simpler and less involved than dealing with thousands of bondholders

These corporation notes may have many factors similar to bond issues They may provide for a note sinking fund They commonly have similar safeguards to insure payment at maturity They differ from bond issues in that they are ordinarily placed privately with a few lenders and that they do not commonly involve premiums or discounts

The account maintained with an issue of long term notes is similar to that maintained with any issue of bonds The title of the account should indicate the nature of the issue The balance is reported as a fixed liability on the balance sheet

STOCKS AND BONDS ILLUSTRATED ON A CORPORATION BALANCE SHEET A balance sheet illustrating certain corpora tion accounts was given at the end of Chapter XXII A new balance sheet illustrating addi tional corporation accounts presented in this and the preceding chapter is given on page 441 This balanee sheet shows the financial condition

GENERAL TRADING CORPORATION

BALANCE SHEET

DECEMBER 31, 1949

	ASSETS				
	Current Assets:				
	Cash			$ 98,000	
	Government Securities			15,000	
	Receivables (less reserve)			32,000	
	Inventories (at cost determined on first-in, first-out basis of value)			45,000	
	Total Current Assets				$190,000
	Investments:				
(5)	Stock of Howard Meyers and Son, Inc.			$ 15,000	
(3)	Bond Sinking Fund			70,000	
	Total Investments				85,000
	Fixed Assets:				
	Land			$ 20,000	
	Buildings (less reserve)			80,000	
	Machinery (less reserve)			265,000	
	Total Fixed Assets				365,000
	Intangible Assets:				
	Patents and Processes				800
	Deferred Charges to Expense:				
	Prepaid Insurance			$ 1,200	
	Miscellaneous Deferred Charges to Expense			7,800	
	Total Deferred Charges to Expense				9,000
	Total Assets				$649,800
	LIABILITIES				
	Current Liabilities:				
	Accounts Payable		$ 30,750		
(2)	Accrued Miscellaneous Items		3,050		
(1)	Preferred Dividend Payable No. 32		1,500		
(1)	Common Dividend Payable No. 16		4,500		
(6)	Income Tax Payable		32,000		
	Total Current Liabilities			$ 71,800	
	Fixed Liabilities:				
(2)	Notes Payable (6% due November 30, 1953)		$ 10,000		
(3)	Bonds Payable (10 years, 6% due December 31, 1952)		100,000		
(3)	Premium on Bonds Payable		3,000		
	Total Fixed Liabilities			113,000	
	Total Liabilities				$184,800
	PROPRIETORSHIP				
	Capital:				
	Preferred Stock (6% cumulative)*		$100,000		
(4)	Common Stock (no par value — 10,000 shares issued)**	$250,000			
(4)	Less Treasury Stock Common (1,000 shares)	25,000			
	Common Stock Outstanding (9,000 shares)		225,000		
	Total Capital Stock Outstanding and Subscribed			$325,000	
	Surplus:				
	Capital Surplus:				
	Premium on Preferred Stock	$ 6,000			
(4)	Treasury Stock Surplus	2,000			
	Total Capital Surplus		8,000		
	Earned Surplus Appropriated:				
(3)	Reserve for Bond Sinking Fund	$ 70,000			
(7)	Reserve for Plant Extension	20,000			
	Total Earned Surplus Appropriated		90,000		
	Earned Surplus Unappropriated		42,000		
	Total Surplus			140,000	
	Total Proprietorship				465,000
	Total Liabilities and Proprietorship				$649,800

*Authorized Preferred Stock, 1,000 shares, par value $100.

**Authorized Common Stock, 20,000 shares, no par value.

of General Trading Corporation at the end of the eighth year of operation It should be noted (a) that by this time Organization Expense does not appear since it has been charged to Earned Surplus over the first five years and (b) that accounts with subscribers are no longer present

The significance of the items reported on the balance sheet should be carefully studied since they illustrate the new corporate accounting practices just described Items worthy of special note have been marked by numbers in parentheses All related items are given the same number Explanations of these related items appear below

(1) Dividends on preferred stock are payable quarterly, those on common stock semiannually The account Preferred Dividend Payable No 32 indicates the thirty-second dividend declared on preferred stock since incorporation and the account Common Dividend Payable No 16 indicates the sixteenth dividend declared on common stock On December 24 1949 a dividend of 1½ per cent, or $1,500, was declared on the preferred stock outstanding At the same time a dividend of 50 cents a share was declared payable on January 12, 1950, to common stockholders of record on December 29 1949 Since 9 000 shares of common stock were outstanding on that date (10 000 shares of stock issued minus 1 000 shares of treasury stock) the dividend was $4 500 Both dividends are listed on the balance sheet as current liabilities

(2) On November 30 1948 notes bearing 6 per cent interest and payable on November 30 1953 were issued The notes have a face value of $10 000 and are reported as a fixed liability The interest on these notes which has accrued from November 30 1949, to December 31 1949 amounts to $50 ($10 000 @ 6% = $600 a year ÷ 12 = $50 a month) and is included in the total of $3 050 shown as Accrued Miscellaneous Items under Current Liabilities

(3) On January 2 1943 bonds bearing 6 per cent interest and payable on December 31 1952 were issued The bonds have a face value of $100 000 but were issued at 110 The bonds payable are therefore reported as a *fixed liability* at their face value of $100 000 The premium of $10 000 received on the issue was reduced by one tenth on each December 31 beginning with 1943, since it is to be amortized over the 10-year life of the bonds The balance of the premium $3,000 is also shown as a fixed liability

The agreement of the bondholders with the corporation provides that $10,000 in cash is to be deposited annually with a trustee to provide a sinking fund for the retirement of the bonds and the $10 000 is also to be transferred annually, before any dividends are declared

from Earned Surplus Unappropriated in order to provide a reserve for the bond sinking fund. That the first provision has been complied with can be seen by reference to the balance of the bond sinking fund account, which is listed as $70,000 under "Investments." Compliance with the second provision is evidenced by the balance of the reserve for bond sinking fund account, which is reported at $70,000 under the heading "Earned Surplus Appropriated."

(4) The common stock has no-par value and is therefore reported at the amount received for it. The total of $250,000 on the balance sheet represents sales as follows:

4,000 shares at $25 a share....................	$100,000
4,000 shares at $26 a share...................	104,000
2,000 shares at $23 a share.	46,000
10,000 shares sold.............	$250,000

The corporation reacquired in December, 1945, 1,000 shares of the common stock at $23 a share, or $23,000. This stock was reacquired because of a contract to sell the president 5,000 shares of common stock in 1950 at $20 a share. The treasury stock is shown on the balance sheet at an amount based on the value of the common stock that has been sold, $250,000. ($250,000 divided by 10,000 equals $25, the average value of a share of common stock; $25 times 1,000 equals $25,000, the value of the treasury stock.) The difference between the amount paid, $23,000 and the value assigned to the treasury stock, $25,000, is $2,000, the treasury stock surplus. On the balance sheet the value of the treasury stock is deducted from the amount of the common stock sold. The treasury stock surplus is shown as part of the capital surplus of the corporation.

(5) The stock of Howard Meyers and Son, Inc., which was purchased by the General Trading Corporation, is reported at its cost under the caption "Investments." When the General Trading Corporation purchased its own stock, the stock was shown as a negative proprietorship item under Common Stock Item (4).

(6) The net operating profit of the General Trading Corporation for the year ended December 31, 1949, was $85,600. After bond interest expense of $5,000 and note interest expense of $600 were deducted, $80,000 was left as net profit. The first charge against this profit was $32,000 for income tax. An entry was therefore made charging Profit and Loss Summary and crediting Federal Income Tax Payable. The following tabulation indicates the disposition of the income for 1949:

Net Profit from Operations		$85 600
Less Bond Interest Expense	$ 5 000	
Note Interest Expense	600	5 600
Net Profit before Provision for Federal Income Tax		$80 000
Less Provision for Federal Income Tax		32 000
Net Profit after Provision for Federal Income Tax		$48 000
Less Dividends Common Stock	$ 9 000	
Preferred Stock	6 000	15 000
Addition to Net Worth		$33 000
Less Appropriation for Bond Sinking Fund	$10 000	
Appropriation for Plant Extension	20 000	30 000
Added to Earned Surplus Unappropriated		$ 3 000

(7) Plans were made in 1949 to expend $80 000 in 1953 on plant extensions The balance of the account Reserve for Plant Extensions $20 000, represents one fourth of this amount which was appropriated from the earnings of 1949 This item is listed under the caption ' Earned Surplus Appropriated

Surplus is divided into three classes on the balance sheet of the General Trading Corporation capital surplus earned surplus appropriated and earned surplus unappropriated The last item represents surplus that can be distributed as dividends or used in any way that the board of directors may choose

QUESTIONS

1 Each of two corporations with about equal credit ratings issues bonds amounting to $100 000 The A Corporation offers bonds with 6% interest and sells them above par The B Corporation offers bonds with 4% interest and sells them below par (a) Does the A Corporation gain by selling its bonds above par? (b) Does the B Corporation lose by selling its bonds below par? (c) How will each of the corporations determine the annual interest cost on the bonds?

2 Assume that the bonds in the previous question were 10 year bonds and that the 6% bonds were sold at 110 and the 4% bonds at 90 Set up cash accounts showing all cash received and disbursed in each case What do these accounts show regarding the interest expense in each case?

3 The General Industrial Corporation borrows $10,000,000 by issuing, at their face value, bonds payable in 20 years. It agrees with the purchasers of the bonds (1) that it will establish a sinking fund for the retire-

ment of the bonds by setting aside $500,000 annually, and (2) that it will appropriate annually from profits an equal amount to establish a reserve for the bond sinking fund. (a) What will be the balances of the bond sinking fund and the reserve accounts at the end of 10 years? (b) How will they be reported on the balance sheet prepared at that time? (c) What entries will be necessary when the bonds are paid?

4. The trial balance of McConnell & Morris Inc. showed the following balances December 31, 1949: 7% Preferred Stock, $100,000; Common Stock, $250,000; Earned Surplus Unappropriated, $100,000; Reserve for Bond Sinking Fund, $20,000; Treasury Stock Common, $50,000. Earnings for 1949 were $160,000. The Federal income tax rate was 25%. The board of directors added $10,000 to the sinking fund reserve and declared the following dividends: (1) the preferred dividend, (2) a common dividend of 10% payable in cash, and (3) a stock dividend of 50% on common stock outstanding. New stock was issued in payment of the stock dividend. Give journal entries to give effect to the preceding operations.

5. Give journal entries for the following:

Mar. 1, 1949. Issued $500,000 of 10-year, 5% bonds, receiving $550,000 in cash.
Mar. 1, 1950. Paid annual interest on the bonds.
Mar. 1, 1950. Established a sinking fund with a first payment of $50,000.
Mar. 1, 1950. Appropriated out of surplus an amount equal to 1 10 of the bond issue.

6. Give the journal entries required by the following transactions of the Bell Corporation:

(a) Subscriptions are received for 1,000 shares of no-par common stock at $15 a share. A 50% payment is received to apply on the subscriptions.
(b) Subscriptions are received for 1,000 shares of 7% preferred stock (par $100) at $102 a share.
(c) The balance of the payment is received from the common stock subscribers.
(d) Payment in full is received for preferred stock subscriptions.
(e) Twenty-year bonds having a face value of $200,000 and bearing interest at 5%, payable semiannually, are sold for $190,000.
(f) One hundred shares of its own common stock were reacquired at $10 a share.
(g) The semiannual interest payment is made on bonds payable.
(h) The credit balance of the profit and loss summary account is $40,000.
(i) Annual dividends are declared by the board of directors on the preferred stock.
(j) A reserve for factory extension of $10,000 is created.
(k) It is discovered that the ending merchandise inventory of the preceding year was overstated by $5,000.

7 Dudley and Douglas, Inc place privately with five insurance companies \$30,000,000 of 3% 20-year debenture notes, becoming due November 1, 1969 A sinking fund beginning after 10 years is scheduled to retire two thirds of this issue by maturity Give journal entries for (a) setting up the notes, (b) paying the annual interest, and (c) providing for the first payment to the bond sinking fund

8

VESEY-HEAP, INC
BALANCE SHEET
DECEMBER 31, 1949

Current Assets	\$300 000	Miscellaneous Current Liab	\$109 000
Fixed Assets	294 000	Income Tax Payable	16 000
Organization Expense	6 000	Preferred Dividend Pay No 6	3 000
		Common Dividend Pay No 12	4 000
		Bonds Payable (10 year, 5%)	100 000
		Premium on Bonds Payable	8 000
		6% Preferred Stock (\$100 par)	100 000
		Common Stock (\$100 par)	200 000
		Reserve for Bond Sinking Fund	20 000
		Earned Surplus Unappropriated	40 000
	600 000		600,000

(a) How often are preferred dividends declared by Vesey-Heap Inc ?
(b) Give the journal entry to write off Organization Expense on December 31 1949
(c) Assuming the same dividend payment each time on common stock what was the annual rate?
(d) Give the entry including the date for the sale of the bonds
(e) What is the book value of the common stock?

PROBLEMS

The following transactions were completed by the Fletcher Corporation during the first two years of its operations, 1949 and 1950

(a) Exchanged 1,000 shares of common stock, par \$100 for machinery, \$100 000
(b) Received \$200,000 for 2 000 shares of 5% cumulative preferred stock (par value \$100)
(c) Net loss for the year, \$10 000 (Debit Profit and Loss Summary and credit Cash)
(d) Closed Profit and Loss Summary to Earned Surplus Unappropriated
(e) Sold \$100,000 worth of 10 year, 3% bonds for \$90 000 (January 2)

(f) Paid $75,000 for new machinery.

(g) Paid annual interest on bonds.

(h) Made a net operating profit of $104,000. (Debit Cash and credit Profit and Loss Summary.) Closed Bond Interest Expense to Profit and Loss Summary.

(i) Recorded provision for federal income tax of 40% of net profit. Closed Profit and Loss Summary to Earned Surplus Unappropriated.

(j) Declared preferred dividends No. 1 and No. 2 on the cumulative preferred stock for the first two years' dividends unpaid.

(k) Declared a 15% stock dividend on common stock outstanding and issued the stock.

(l) Appropriated a reserve for plant additions, $5,000.

Instructions: (1) Record the transactions directly in "T" accounts. The accounts required are: Cash; Machinery; Federal Income Tax Payable; Preferred Dividend Payable No. 1; Preferred Dividend Payable No. 2; Bonds Payable; Discount on Bonds Payable; Preferred Stock; Common Stock; Reserve for Plant Additions; Earned Surplus Unappropriated; Profit and Loss Summary; Bond Interest Expense.

(2) Prepare a trial balance as of December 31, 1950, after the transactions of the two years have been recorded.

2. The Dawson Corporation was organized on January 2, 1950, with authorization to issue 50,000 shares of no-par common stock. During the first year the corporation completed the following transactions:

Jan. 2. Sold 15,000 shares of common stock for cash at an average of $20 a share.

3. Received assets valued at $100,000 for 4,000 shares of common stock (debit Other Assets).

7. Paid organization expenses of $10,000.

Feb. 10. Purchased assets for $80,000. (Debit Other Assets.)

July 1. Issued $100,000 worth of 20-year bonds at 110; interest at 5%, payable semiannually.

Dec. 31. Paid semiannual interest on bonds issued.

31. Made a net operating profit for the year of $52,250 (debit Cash; credit Profit and Loss Summary). Closed Bond Interest Expense to Profit and Loss Summary.

31. Provided for federal income tax at 40% of net profit. Closed Profit and Loss Summary to Earned Surplus Unappropriated.

31. Established a reserve for bond sinking fund in the amount of $2,500 and made a deposit with a trustee of an equal amount of cash.

31. Wrote off organization expense of $2,000.

Instructions: (1) Record the transactions directly in "T" accounts. The accounts required are: Cash; Bond Sinking Fund; Other Assets; Organization Expense; Federal Income Tax Payable; Bonds Payable; Premium on Bonds Payable; Common Stock; Reserve for Bond Sinking Fund; Earned Surplus Unappropriated; Profit and Loss Summary; Bond Interest Expense.

(2) Prepare a balance sheet as of December 31, 1950.

3 The following figures are taken from the general ledger of Catalina, Inc at the end of the fiscal year on December 31, 1950, after some of the adjustments have been posted

Cash	$45,000	Res for Bond Sinking Fund	$ 8,000
Merchandise Inventory	50,000	Res for Inventory Losses	6,000
Machinery	40,000	Unappropriated Earned Surplus	27,600
Res for Depr of Machinery	5 600	Sales	200 000
Bonds Payable (10 year 3%)	20,000	Purchases	120,000
Discount on Bonds Payable	1,650	Operating Expenses (control)	40,100
Common Stock	30,000	Bond Interest Expense	450

The following corrections and additional adjustments are indicated by an inspection of the accounting records and the supporting business papers of the corporation

Errors and omissions

(1) The reserve for inventory losses is to be increased by $1,500
(2) The merchandise inventory of January 1, 1950, was overstated by $2,000
(3) The bonds payable agreement requires an annual appropriation of $2 000 to the reserve for bond sinking fund

Data for adjusting entries

(a) The merchandise inventory as of December 31, 1950, is $51,000
(b) The yearly depreciation of machinery is 5% (debit Operating Expense)
(c) The bonds were sold five years ago at a discount of $3,000 The interest is payable semiannually on January 1 and July 1 (Debit Bond Interest Expense, credit Interest Payable and Discount on Bonds Payable)

Instructions (1) Prepare an eight-column work sheet, heading the second pair of columns "Corrections and Adjustments" Show the provision for federal income tax (40% of net profit) as a distribution of net profit as in the illustration on page 405

(2) Prepare a profit and loss statement and a statement of earned surplus

PRACTICE SET No. 2

Part 2

Part 2 of Practice Set No. 2 is a continuation of Practice Set No. 2 given after Chapter 20. The same books of original entry and ledgers are to be used. You will not be required to record the sales on account as they are entered for you by an assistant bookkeeper.

Narrative of Transactions for August

August 1. A. C. Adams and M. R. Parker incorporated their retail paint store under the name of Adams and Parker, Incorporated. The charter authorized the issuance of 360 shares of 6% preferred stock, par value $100, and 500 shares of common stock, par value $50.

In payment for their interests in the partnership business, Adams received 100 shares of preferred stock and 160 shares of common stock and Parker received 100 shares of preferred stock and 160 shares of common stock. The difference between the capital accounts and the par value of the stock issued was taken care of by a payment from the cash of the business.

Since the same books of account are to be maintained, the only entries required are those to close the partners' capital accounts, to record the issuing of stock, and to record the cash payments.

You are not required to record in the stockholders ledger the stock issued, as the stock certificate book and the stockholders ledger are maintained by the secretary of the corporation.

August 1. Sold 30 shares of preferred stock at $110. Received cash and issued the stock.

August 1. Sold 40 shares of common stock at par. Received cash and issued the stock.

August 1. Purchased for $10,000 from the Peterson Realty Co. the land and the building in which the business is located. Issued a check for $5,000 and a 6% mortgage for the balance.

> The amount of the mortgage is to be paid at the rate of $500 a year, and interest at 6% is to be paid semiannually at the end of June and of December. The value of the building is estimated at $6,000 and the value of the land is estimated at $4,000. (Record the transaction in the general journal; also enter the amount of cash in the voucher register and check register.)

August 1. Sent a check to Barron Bros. in payment of Voucher No. 398 less discount.

August 1 Paid Edward B Connell, a lawyer, \$75 for examining the title to the land that has been purchased

> All expenditures incurred in connection with the purchase of a fixed asset may be considered part of the cost of the asset The fee paid to the lawyer should therefore be charged to the land account

August 1 Took out a three-year insurance policy on the building Paid the premium for three years, \$72

August 2 Received from T W Burke a check for \$90 11 to balance his account

August 2 Made the following purchase on account

Burgess Paint Co, merchandise \$852 25 Invoice dated August 1 terms, 1 10, n 30

August 2 Paid \$3 95 from the petty cash fund for refinishing of a desk.

August 3 Sent checks to the following creditors

Joslin s Painter Supply Corporation, in payment of Voucher No 399 less discount

Burgess Paint Co in payment of Voucher No 402 less discount.

August 3 Prepared a voucher and issued a check for the payroll for the week. The following data are provided by the payroll clerk and may be used as a basis for the entries

Sales Salaries	\$335 00	
Delivery Salaries	65 00	
Office Salaries	105 00	
Total of Payroll		\$505 00
Deductions		
Employees share of federal old age benefit tax	\$ 5 05	
Employees income tax withheld	20 10	
Total Deductions		25 15
Amount Paid		\$479 85

August 3 Recorded the company s liability for its share of the federal old age benefit tax and for its federal and state unemployment taxes The data provided by the payroll clerk for this entry are as follows

Federal old age benefit tax	\$ 5 05
State unemployment tax	13 64
Federal unemployment tax	1 52
Total social security taxes	\$ 20 21

August 3 Cash sales for August 1–3, \$958 50 Sales tax collected \$19 17

August 5 Received from Robert J Kirk a check for \$158 87 to balance his account

August 5 Prepared a voucher and issued a check to the Department of Taxation for sales taxes payable for July

August 6 Made the following purchase on account

Eilerson Company, merchandise, \$329 40 Invoice dated August 5 terms, 1/30 n/60

August 6. Paid $3.75 from the petty cash fund for twine to be used in wrapping merchandise sold.

August 7. Received from C. W. Harrison his 30-day, 6% note for $373.12 to balance his account. This note was dated August 7 and is payable at the First National Bank.

August 7. Received a check for $201 from L. E. Snider in payment of his note and interest due today.

August 8. Sent a check to Potter Paint & Paper Co. in payment of Voucher No. 387 less discount.

August 8. Received a check for $179.39 from H. V. Caldwell in payment of his note and interest due today.

August 9. Received from Eilerson Company a credit memorandum for $73.20, merchandise returned on purchase of August 6.

August 10. Sent a check to O'Keefe Supply Co. in payment of Voucher No. 404 less discount.

August 10. Paid salaries for the week and recorded the social security taxes. Salaries, deduction, and taxes were the same as on August 3.

August 10. Cash sales for the week, $1,442.60. Sales tax collected, $28.85.

Prove cash. The cash balance is $6,427.40.

Post from the various journals to the customers' accounts in the accounts receivable ledger. The complete sales journal for August as prepared by your assistant is printed in your book of journals and registers. In each posting during the month, post only those items that would normally be recorded before the date of posting.

August 12. Sent a check to Eilerson Company in payment of Voucher No. 395 less discount.

August 12. Received from Henry B. Lange a check for $92.82 to balance his account.

August 13. Received from Roy D. Lucas a check for $75 to apply on his account. Received a memorandum from Mr. Adams directing that the remaining balance of $30 in the Roy D. Lucas account be written off as a bad debt.

August 13. Gave Mr. Parker $2.75 from the petty cash fund to reimburse him for entertaining a customer at lunch.

August 13. Received from H. V. Caldwell his 60-day, 6% note for $388.82 to balance his account. This note was dated August 13 and is payable at the Union National Bank.

August 14. Made the following purchases on account:

Joslin's Painter Supply Corporation, merchandise, $235.60. Invoice dated August 13; terms, 2/10, n/30.

O'Keefe Supply Company, merchandise, $217.60. Invoice dated August 14; terms, 2/15, n/30.

August 14. Paid Morris Supply Company cash, $72.75, for store supplies.

August 15. Gave a cash customer who returned merchandise $1.28 from the petty cash fund, $1.25 for merchandise returned and 3 cents sales tax.

August 15. Paid the local school paper, *Tower News*, $15.50 for an ad.

August 16. Made the following purchases on account:

Davison Hardware Company, merchandise, $45. Invoice dated August 14; terms, n/30.

Hayden & Company, office supplies, $62.40. Invoice dated August 14; terms, n/30.

August 16 Paid \$56 60 to the I Young Company for making various repairs to the building

Expenditures of this type, which are incurred in maintaining a fixed asset in good condition, are considered as expenses of the period in which they are incurred

August 17 Made the following payments from the petty cash fund:

For registry of letters, 56 cents

For deliveries, \$2 15

August 17 Received from Kennedy Contracting Corporation a check for \$139 68 to balance its account

August 17 Paid salaries for the week and recorded the social security taxes Salaries, deductions, and taxes were the same as on August 3

August 17 Cash sales for the week, \$1,597 73 Sales tax collected, \$31 95

August 19 Made the following purchases on account

Ramsey Wholesale House, merchandise, \$281 60 Invoice dated August 17, terms, 2 10, n 30

Irwin & Sons, merchandise, \$644 10 Invoice dated August 17, terms, 2 15, n 60

August 19 Issued a credit memorandum to Meade Wall Paper & Paint Co for \$47 74 merchandise returned, \$46 80, sales tax, 94 cents

August 20 Paid C W Hauser \$16 50 for repairs in store room (Charge Miscellaneous Selling Expense)

August 21 Made the following purchases on account

Carey Brushes Corporation, merchandise, \$260 95 Invoice dated August 19 terms 2 15, n 30

Burgess Paint Company, merchandise, \$855 25 Invoice dated August 19, terms, 1 10, n 30

August 21 Issued a credit memorandum to Robert J Kirk for \$46 41 merchandise returned, \$45 50, sales tax, 91 cents

August 22 Sent Morris Supply Company a check in payment of Voucher No 397

August 22 Paid \$2 25 from the petty cash fund for extra help in wrapping merchandise sold (Charge Miscellaneous Selling Expense)

August 22 Paid C W Hauser \$26 60 for minor repairs on the building

August 23 Prepared a voucher and issued a check in payment of our note No 15 due today

August 23 Made the following purchases on account

Eilerson Company, merchandise, \$710 Invoice dated August 21; terms, 1/30, n 60

Potter Paint & Paper Co, merchandise, \$715 Invoice dated August 22, terms, 1/30, n/60

August 23 Sent a check to Joslin's Painter Supply Corporation in payment of Voucher No 422 less discount.

August 24 Paid \$1 50 from the petty cash fund for extra work done by the janitor (Charge Miscellaneous General Expense)

August 24 Sent a check to Spangler Supply House in payment of Voucher No 401 less discount

August 24 Paid salaries for the week and recorded the social security taxes Salaries, deductions, and taxes were the same as on August 3

August 24. Cash sales for the week, $1,495.40. Sales tax collected, $29.91.

Prove cash. The cash balance is $6,573.89.

Post from the various journals to the customers' accounts in the accounts receivable ledger.

August 26. Received from J. R. Ferris his 30-day, 6% note for $485.01 to balance his account. This note was dated August 26 and is payable at the Liberty Bank and Trust Company.

August 26. Made the following purchases on account:

Spangler Supply House, merchandise, $466.80. Invoice dated August 24; terms, 1/30, n/60.

Frazier & Gerard, merchandise, $544.50. Invoice dated August 26; terms, n/60.

August 26. Made the following payments from the petty cash fund:

Paint to be used on the store counters, $1.62. (Charge Miscellaneous Selling Expense.)

Telegram charges, $1.30.

August 27. Received checks from customers as follows:

Nelson Homes Company, $99, to balance its account.

Meade Wall Paper & Paint Co., $290.24, to balance its account.

William W. Ragan, $266.07, to balance his account.

August 27. Sent a check to Ramsey Wholesale House in payment of Voucher No. 430 less discount.

August 28. Received a check for $252.50 from Carter Construction Co. in payment of its note and interest due today.

August 28. Prepared a voucher and issued a check in payment of our note No. 13.

August 28. Issued a credit memorandum to E. A. Tate for $10.20: merchandise returned, $10; sales tax, 20 cents.

August 28. Made the following purchases on account:

Ramsey Wholesale House, merchandise, $759.60. Invoice dated August 27; terms, 2/10, n/30.

Barron Bros., merchandise, $427.50. Invoice dated August 27; terms, 2/10, n/30.

August 29. Sent checks to the following creditors:

Burgess Paint Company, in payment of Voucher No. 434 less discount.

O'Keefe Supply Company, in payment of Voucher No. 423 less discount.

August 29. Received from Spangler Supply House a credit memorandum for $19.80, merchandise returned.

August 29. Paid $1.50 from the petty cash fund for having the delivery truck washed.

August 29. Paid the *Daily Times* $245 for advertising.

August 30. Received checks from customers as follows:

Masters Housing Corporation, $199.17, to balance its account.

Haines Construction Co., $260.55, to balance its account.

August 31. Gave Burgess Paint Co. our 60-day, 6% note for $852.25 in settlement of Voucher No. 417. This note was made payable at the City National Bank.

CHAPTER XXV

DEPARTMENTAL ACCOUNTING

DEPARTMENTAL INCOME When a business sells several classes of commodities or services, the income from each class may be accounted for separately. It is then possible to know which classes are profitable and which classes are unprofitable. When management is so informed, it can develop policies much more intelligently. Accounting that classifies income and expenses according to departments is known as *departmental accounting.*

All the sales of a given enterprise may be classified according to the types of commodities or services sold. To determine the net profit for each sales classification, it is necessary to break down on the profit and loss statement each item that enters into net profit. The result is a departmentalization of business operations and the accounting for the business as if the business were a group of departments instead of a single unit.

In a small business the owner is concerned primarily with the net profit obtained as a result of trading operations in all classes of merchandise carried by the business. In a large business, however, it is often desirable to classify the commodities bought and sold into two or more groups and to determine the profit made from each group. To illustrate: If a business deals in both hardware and furniture, it may be advisable to maintain accounts so that the profit made from each class of merchandise can be determined readily. The owner of the business can then judge the profitableness of the department handling each class of merchandise and can better plan for the future. If each department has a separate manager, the efficiency of the manager can also be better judged from the profit made by his department.

INCOME AND EXPENSES BY DEPARTMENTS The organization of business enterprises into departments to facilitate operations is a common practice in modern business. The delegation of sales responsibility to department heads has increased the effectiveness of the whole enterprise. If income and expense accounts are set up by departments, the top management can learn how successful each department head has been.

This increase in income and expense accounts multiplies the number of accounts to be included in the ledger and the trial balance. If there

are only two or three departments, the new accounts can be added in the general ledger. If there are many departments, it is advisable to make use of the controlling account device described in previous chapters. In this chapter the departmental income and expense accounts will be included in the general ledger.

DEPARTMENTAL ANALYSIS IN ACCOUNTS AND BOOKS OF ORIGINAL ENTRY The records of a departmentalized business should be so planned that they will supply all the information desired about each department. In a small business, such as a retail store in which the various classes of merchandise are handled together and are sold by the same sales force, the departmental records for each department will show only the gross profit on sales. The expenses will not be divided according to departments but will be grouped together.

If gross profit on sales is to be found by departments, the accounts should furnish information about the sales, the purchases, and the inventories of each department. If the amounts involved warrant it, an analysis of sales returns and allowances and of purchases returns and allowances should also be provided by departments. It is even advisable to distribute freight in departmentally.

If the accounts are to show this departmental analysis of trading operations, the books of original entry must be designed to provide the same analysis. This provision can best be made by the introduction of additional columns into the books of original entry. In order that the use of these special columns may be shown, the books of original entry for a business operating hardware and furniture departments will be illustrated.

THE PURCHASES JOURNAL In the purchases journal shown on page 457, the purchases of the firm of King and King have been recorded. The amount of each purchase has been entered first in the Accounts Payable Cr. column and then in the Hardware Purchases Dr. or the Furniture Purchases Dr. column according to whether the purchase was for the hardware department or the furniture department. Additional columns might also have been added for the recording of the purchase of items other than merchandise. If that had been done, the purchases journal of King and King might have been the same as the one illustrated on pages 122 and 123, except for the use of separate columns for Hardware Purchases Dr. and Furniture Purchases Dr. instead of one column for Purchases Dr.

The credits to the accounts of the vendors were posted currently. At the end of the month the three amount columns were totaled and

the journal was ruled. The totals were posted to the accounts indicated in the columnar headings. If a bookkeeper using this type of purchases journal does not care to write the names of the accounts to which the totals are to be posted, he may indicate the posting by writing directly below the total the number of the page in the ledger to which the posting has been made. This method is illustrated in the purchases returns and allowances journal shown at the bottom of this page.

PURCHASES JOURNAL

DATE		PUR. NO.	ACCOUNT CREDITED	ADDRESS	DATE OF INV	TERMS	P.R.	ACCTS. PAY. CR.		HDWE PUR. DR		FURN. PUR. DR	
1950													
Mar.	1	27	Simmons Hdwe. Co.	St. Louis	2/27	2/10, n/30	√	363	75	363	75		
	6	28	Crowell Furn. Co.	St. Paul	3/1	2/10, n/60	√	1,095	50			1,095	50
	10	29	Boutell Furn. Co.	Chicago	3/8	2/10, n/60	√	710	95			710	95
	20	30	W. D. Allen & Co.	Cleveland	3/18	3/10, n/60	√	593	55	593	55		
	31		Accounts Payable Cr.				17	2,763	75				
	31		Hardware Purchases Dr.				24			957	30		
	31		Furniture Purchases Dr.				30					1,806	45

Purchases Journal Showing Departmental Analysis

THE PURCHASES RETURNS AND ALLOWANCES JOURNAL Purchases returns and allowances require the same analysis as purchases if the returns and allowances for each department are to be deducted from the purchases for that department. The purchases returns and allowances journal of King and King is shown below. The amount of each purchase return or allowance has been entered in two columns: the Accounts Payable Dr. column and the returns and allowances column that corresponds to the department for which the return or the allowance was made. At the end of the month the amount columns were totaled and the journal was ruled. The accounts payable account was debited and the hardware purchases returns and allowances and the furniture purchases returns and allowances accounts were credited for the totals of the respective columns.

PURCHASES RETURNS AND ALLOWANCES JOURNAL

DATE		CREDIT MEMO. NO.	ACCOUNT DEBITED	ADDRESS	PUR. NO.	P.R.	ACCTS. PAY. DR		HDWE. PUR. R & A. CR.		FURN PUR. R. & A. CR.	
1950												
Mar.	10	6	Simmons Hdwe. Co.	St. Louis	27	√	129	55	129	55		
	20	7	Boutell Furn. Co.	Chicago	29	√	247	60			247	60
							377	15	129	55	247	60
							(17)		(25)		(31)	

Purchases Returns and Allowances Journal Showing Departmental Analysis

THE SALES JOURNAL In a departmentalized wholesale business in which practically all sales are made on account, a sales journal similar to that of King and King (illustration below) may be used. The total of each sale made by King and King was recorded in the Accounts Receivable Dr. column, and the total of this column was posted at the end of the month to the debit of Accounts Receivable. The hardware sales and the furniture sales were recorded in separate columns, and the totals of these columns were posted at the end of the month to the credit of the hardware sales and the furniture sales accounts. The debits to the customers' accounts were posted currently.

SALES JOURNAL

Date	Sale No.	Account Debited	Address	Terms	F.R.	Accts. Rec. Dr.	Hdwe. Sales Cr.	Furn. Sales Cr.
19[illegible]								
Mar. 4	62	King Furniture Co.	St. Louis	1/10, n/60	✓	625 00		625 00
10	63	Babson Merc. Co.	Detroit	1/10, n/60	✓	351 90	351 90	
15	64	Paul Furniture Co.	Kansas City	1/10, n/60	✓	[illegible]		[illegible]
20	65	Wilson & Co.	Cleveland	1/10, n/60	✓	[illegible]	[illegible]	
[illegible]	66	James & Weber	Buffalo	1/10, n/60	✓	233 00	223 00	
[illegible]	67	M. & D. Cook	Cincinnati	1/10, n/60	✓	1 0[illegible] 20	[illegible] 45	[illegible]
						3,[illegible] 15	1 [illegible] 65	2 005 [illegible]
						(4)	(22)	(23)

Sales Journal Showing Departmental Analysis

In a retail business there are many cash sales. These are usually recorded as daily totals. If a departmental analysis of sales is made, separate columns for the cash sales of the various departments may be provided in the cash receipts record, and the total of each column may be posted at the end of the fiscal period to the credit of the departmental sales account. If a business sells largely on account, however, and makes relatively few cash sales, it may not wish to have in its cash receipts record a separate column for the cash sales of each department. In this case the need for these special columns in the cash receipts record may be avoided by providing one special column for cash sales in the sales journal.

For example, the credit and cash sales of a wholesale firm dealing in hardware and furniture are recorded in a sales journal having a special column entitled "Cash Dr." The journal illustrated on the opposite page shows the sales that were made during April by this firm. Each sale on account was recorded in the same manner as it was in the sales journal on this page. The cash sales were recorded as totals, however, in the Cash Dr. column and in the column corresponding to the department in which these sales were made. The totals of the cash

sales were also recorded in the cash receipts journal in the manner shown in the second illustration on this page.

SALES JOURNAL

DATE		SALE NO.	ACCOUNT DEBITED	ADDRESS	TERMS	P.R.	ACCTS. REC. DR.	CASH DR.	HDWE. SALES CR.	FURN SALES CR.
1950										
April	5	83	Meyer Hdwe. Co.	Cleveland	2/10, n/30	√	269 50		269 50	
	10		Cash Sales			√		98 65		98 65
	14	92	St. Paul Furn. Co.	St. Paul	2/10, n/30	√	305 10			305 10
	19		Cash Sales			√		116 75	116 75	
	21	105	J. V. Alexander	New York	2/10, n/30	√	469 50		205 15	264 35
	29	106	James Hdwe. Co.	City	2/10, n/30	√	364 60		364 60	
							1,408 70	215 40	956 00	668 10
							(4)	(√)	(20)	(26)

Sales Journal with a Column for Cash Sales

Since the entries for cash sales in the sales journal were not to be posted to a separate account, they were checked in the Posting Reference column. The total of the Cash Dr. column was also checked in order to prevent double posting from the sales journal and the cash receipts journal. As a result the amounts of cash sales were posted from the sales journal only as a part of the totals of the Hardware Sales Cr. and the Furniture Sales Cr. columns.

CASH RECEIPTS JOURNAL

DATE		ACCOUNT CREDITED	EXPLANATION	P R	GENERAL CR	ACCTS REC. CR	SALES DISC DR.	CASH DR
1950								
April	1	Notes Receivable	Note No. 4	3	200 00			200 00
	5	Carl B. Winston	Inv. 3/28 less discount	√		168 50	3 37	165 13
	7	Store Supplies	Sold paper and twine	10	5 25			5 25
	10	Sales	Cash sales	√	98 65			98 65
	12	St. Paul Furn. Co.	Inv. 3/15	√		309 85		309 85
	15	Meyer Hdwe. Co.	Inv. 4/5 less discount	√		269 50	5 39	264 11
	19	Sales	Cash sales	√	116 75			116 75

Cash Receipts Journal Showing Entries for Cash Sales That Were Also Recorded in the Sales Journal

In the cash receipts journal a check mark was placed in the Posting Reference column, opposite each entry for cash sales, to indicate that the entry was not to be posted. As a result the amounts of cash sales were posted from this book only as a part of the total of the Net Cash Dr. column. The equality of the debits and the credits was maintained in posting the columnar totals from both books because the credits to the hardware sales and the furniture sales accounts were equal to the debit to Accounts Receivable, posted from the sales journal, and the amount of cash sales posted from the cash receipts journal as a part of the total of the Net Cash Dr. column.

THE SALES RETURNS AND ALLOWANCES JOURNAL If sales returns and allowances are numerous and are to be analyzed by departments, they may be recorded in a columnar journal similar to that illustrated below. This journal is used by King and King and provides special columns for the analysis of the sales returns and allowances of the departments.

SALES RETURNS AND ALLOWANCES JOURNAL

Date		Credit Memo No.	Account Credited	Address	Sale No.	P R	Accts. Rec. Cr.	Home Sales R. R. A. Dr.	Furn. Sales R. R. A. Dr.
1930 Mar.	8	10	King Furniture Co.	St. Louis	62	✓	49 95		49 95
	22	11	Wilson & Co.	Cleveland	65	✓	10 00	10 00	
	29	12	M. & D. Cook	Cincinnati	67	✓	1 70	1 70	
							61 65	11 70	49 95
							(4)	(23)	(29)

Sales Returns and Allowances Journal Showing Departmental Analysis

FREIGHT, EXPRESS, AND DRAYAGE Freight, express, and drayage on incoming shipments of merchandise represent a part of the cost of the merchandise sold and are therefore added to the cost price of the merchandise purchased. Freight, express, and drayage on outgoing shipments of merchandise represent the cost of delivering goods to customers and are usually treated as a selling expense.

If a business is departmentalized, the freight and drayage in should be departmentalized in order to obtain accurately departmental cost of sales. If this cost can be charged directly to the various departments, more accurate figures result. If it is not possible to charge it directly, it should be assigned on some satisfactory basis. If commodities in the several departments are of similar bulk, the cost of purchases would be acceptable for such assignment. If the bulk varies, then weight might be used. A discussion of what basis should be used to distribute various expense items, including freight, will be found in a following section.

Since freight and drayage outward is usually classified as a selling expense, it will not be necessary to departmentalize it, unless net profit by departments is to be obtained. If so, the basis for charging it to the several departments may follow that used for charging freight in and drayage to departments.

OPERATING EXPENSES DEPARTMENTALIZED A small departmentalized business may use only the departmental trading accounts that have been discussed in the preceding paragraphs. From these accounts

the gross profit on the sales of each department can be determined. A large business, however, will probably wish to have the expenses analyzed according to departments so that the net profit for each department can be determined.

Whenever possible, the expenses of a department may be charged to the departmental expense accounts as the payments are made. For example, if a business having two departments pays salaries each week, the salaries may be charged to separate departmental accounts, such as Salaries of Sales Clerks, Department A and Salaries of Sales Clerks, Department B.

Many expenses can be divided more conveniently at the end of the fiscal period than at the time they are paid or recorded. For example, the management may decide that rent is to be distributed to the various departments according to a fixed ratio. When the ratio is established, both the amount and the desirability of the space used by each department are taken into consideration. Space in a prominent position on the first floor may be considered as being worth more than space on upper floors or in less prominent positions on the same floor.

If the rent is paid monthly, it may be distributed to the departments at the time each payment is made and the departmental rent accounts may be charged directly. If the books are closed only once a quarter or once a year, however, it probably would be more convenient to charge all rent payments to a rent account and then to distribute the rent to the various departments at the close of the fiscal period.

APPORTIONMENT OF OPERATING EXPENSES TO DEPARTMENTS Departments naturally fall into two main divisions: (1) those departments that make sales or sell services and (2) those departments that assist or serve the selling departments. The departments in the second class are called service departments. Their expenses should be charged against the selling departments in accordance with the cost of the service rendered these departments. For example, a departmentalized retail store may maintain a central office, with files, desks, and office employees, which serves the various selling departments. If the service rendered by this central office is proportionate to sales made, then its costs should be apportioned among the several selling departments according to sales. Or, a parking lot for the convenience of customers may be maintained at considerable cost. Customers make purchases in the various departments of the store. The cost of the parking lot should be apportioned to the various selling departments on some equitable basis.

If there are a number of selling departments and a number of service departments, a columnar distribution sheet provides an effective accounting device for this apportionment Such an expense distribution sheet is shown below

OPERATING EXPENSES	BASIS OF DISTRIBUTION	TOTAL	DISTRIBUTION				
			Purchasing	General Office	A	B	C
Salaries	Direct	4 500	600	1 100	400	900	1 500
Supplies	Direct	1 600	100	400	200	400	500
Insurance	Value of Equip	400	25	50	100	100	175
Rent	Space Occupied	1 000	50	100	150	250	450
Depreciation	Value and Life of Equipment	900	50	120	150	250	330
Heating	Space Occupied	200	10	70	30	50	90
Lighting	No of Lights	75	5	10	15	15	20
Advertising	Volume of Sales	1 200			170	400	630
Total Expenses		9 875					
Purchasing	Volume of Purchases		840		140	280	[illegible]
General Office	Volume of Sales			1 900	[illegible]	600	945
					1 610	3,215	5 070
Reconciliation							
Dept A		1 610					
Dept B		[illegible]					
Dept C		5 070					
		9 875					

This distribution sheet provides for the collection and the distribution of the expenses of two service departments, (1) Purchasing and (2) General Office, to three selling departments designated A, B, and C It also indicates in the second column the basis of distribution or apportionment The Total column should agree with the sum of the selling department columns since all costs are eventually charged against one or another of the selling departments

On the distribution sheet, each operating expense is distributed first to all the departments on some equitable basis The operating expenses for the two service departments, Purchasing and General Office, are then totaled and in turn are distributed to the selling departments The operating expenses of the purchasing department are distributed on the basis of volume of purchases by each of the selling departments For example, assume that the purchases of Departments A, B, and C were \$14,000, \$28,000, and \$42,000 respectively Of the total purchases, A would have 1/6, B, 1/3, and C, 1/2 These fractions are used in the distribution of the total purchasing expenses, \$840, to the three selling departments In a similar manner the operating expenses of the general office department are distributed on the basis of departmental sales volume

THE WORK SHEET OF A DEPARTMENTALIZED BUSINESS In preparing a work sheet for a departmentalized business at the close of the accounting period, it is customary to set up, under the heading "Profit and Loss Statement," a pair of columns in which will be entered the income, the costs, and the expenses of each department. An additional pair of columns is usually included for nondepartmental items. A business with two departments might therefore need six columns under "Profit and Loss Statement." The sales, purchases, inventories, expenses, and other items would be segregated by departments in two pairs of columns, and all items not applicable to any department would be entered in the additional pair of columns. The work sheet for an enterprise with two departments might have the following columns:

Name of Account	Trial Balance		Adjustments		Profit and Loss Statement						Balance Sheet	
					Dept. A		Dept. B		Nondept.			
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.

The columns under the heading "Profit and Loss Statement" would provide the data for the profit and loss statements of the business.

If only gross profit is to be departmentalized, the trial balance accounts entering into the determination of gross profit would appear in the appropriate departmental columns. The operating expenses in this case would all appear in the last pair of profit and loss statement columns, headed "Nondepartment." If, however, operating expenses are to be departmentalized and net profit for each department is to be found, the Nondepartment columns would be reserved for Other Income and Other Expense items, such as Interest Income and Sales Discount.

The distribution of operating expense items not set up in separate departmental accounts in the ledger is illustrated below. The proper portions belonging to each department are entered in the departmental columns on the work sheet.

Name of Account	Trial Balance		Adjustments		Profit and Loss Statement						Balance Sheet	
					Dept. A		Dept. B		Nondept.			
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Rent........	1200				900		300					
Expired Insurance...			800		400		400					

The rent amount of $1,200 is distributed on the basis of area occupied, which for Department A is 1,800 square feet and for Department B is 600 square feet. The expired insurance of $800 is distributed on the basis of insurance carried applicable to Departments A and B, which in this example calls for an equal distribution.

THE PROFIT AND LOSS STATEMENT — GROSS PROFIT SHOWN BY DEPARTMENTS If the departmental analysis is carried to the gross trading profit earned by the departments, only the trading section of the profit and loss statement is affected. A separate report may be prepared to show the gross trading profit earned by each department, or a single statement may be presented in a comparative form. If the business has only two departments, the comparative form can be used to advantage. The illustration below shows the trading section of such a statement for a business having two departments. The remainder of this statement would be the same in form as that part of the statement for a nondepartmentalized business that shows the determination of the net profit.

If the business has more than two or three departments, the use of additional columns at the right of the statement would make such a form awkward in appearance and use. In such cases it is advisable to prepare a separate trading report for each department. Each of these reports would show as a final item the gross profit on sales for one department. The illustration below shows such a report for one of the departments of the business operated by Harvey Dorn:

HARVEY DORN
DEPARTMENT A, GROSS PROFIT ON SALES
FOR YEAR ENDED DECEMBER 31, 1950

Income from Sales:			
Sales		$49,367.48	
Less Sales Returns and Allowances		140.75	
Net Sales			$49,226.73
Cost of Merchandise Sold:			
Merchandise Inventory, January 1, 1950		$ 4,968.00	
Purchases	$37,406.40		
Add Freight In	645.00		
Delivered Cost of Purchases	$38,051.40		
Less Purchases Returns & Allow.	144.90		
Net Purchases		37,906.50	
Merchandise Available for Sale		$42,874.50	
Less Merchandise Inventory, Dec. 31, 1950		5,345.15	
Cost of Merchandise Sold			37,529.35
Gross Profit on Sales			$11,697.38

Trading Report Showing the Gross Profit of a Department

After the trading reports for the various departments have been completed, another report is prepared to show the net profit of the business as a whole. The various amounts of gross profit are added on this profit and loss statement to show the total gross profit. The statement is then completed in the usual manner. The illustration on page 466 is the profit and loss statement of Harvey Dorn, with which the trading report in the illustration above correlates.

THE PROFIT AND LOSS STATEMENT — NET PROFIT SHOWN BY DEPARTMENTS If the net profit for each department is determined separately, a separate profit and loss statement showing net profit is made for each department. The departmental profit and loss statements are much the same in form as the statement of a nondepartmentalized business. Each statement closes with the net profit from the operations of a particular department. On a separate report the net profits from the

HARVEY DORN

Profit and Loss Statement
For Year Ended December 31, 1950

Gross Profit for Department A		$11,697 38	
Gross Profit for Department B		4,183 68	
Gross Profit for Department C		2,405 40	
Gross Profit for Department D		3,111 15	
Total Gross Profit			$21,397 61
Operating Expenses			
Selling Expenses			
Salaries of Sales Clerks	$6 264 20		
Advertising	1,810 00		
Depreciation of Store Fixtures	132 85		
Store Supplies Used	214 50		
Expired Insurance on Mdse	22 50		
Expired Insurance on Store Fixtures	10 00		
Miscellaneous Selling Expense	28 60		
Total Selling Expenses		$ 8 482 65	
Delivery Expenses			
Wages of Truck Driver	$1,615 00		
Depr of Delivery Equipment	212 00		
Delivery Supplies Used	115 00		
Expired Insurance on Delivery Equip	60 00		
Miscellaneous Delivery Expense	65 20		
Total Delivery Expenses		2,067 20	
General Expenses			
Office Salaries	$2,768 90		
Rent	2,500 00		
Depr of Office Equipment	43 00		
Office Supplies Used	83 50		
Expired Insurance on Office Equip	3 50		
Loss from Bad Debts	215 06		
Miscellaneous General Expense	629 40		
Total General Expenses		6 243 36	
Total Operating Expenses			16,793 21
Net Profit from Operations			$ 4,604 40
Other Income			
Purchases Discount	$ 570 10		
Interest Income	34 40		
Total Other Income		$ 604 50	
Other Expense			
Sales Discount	$ 194 70		
Interest Expense	93 65		
Total Other Expense		288 35	
Net Addition			316 15
Net Profit			$ 4,920 55

Profit and Loss Statement of a Departmentalized Business

operations of the various departments are added to show the total net profit for the period. To this amount the other income is added, and from the total the other expense is subtracted, in the same manner as these items are treated in the profit and loss statement of a nondepartmentalized business. The following illustration is a statement showing the method of reporting the net profits earned by various departments and of handling the other income and expense of the business.

FREDERICK GALE
PROFIT AND LOSS STATEMENT
FOR YEAR ENDED DECEMBER 31, 1950

Net Profit from Operations, Department A		$9,590.50	
Net Profit from Operations, Department B		6,450.10	
Net Profit from Operations, Department C		7,112.50	
Total Net Profit from Operations			$23,153.10
Other Income:			
Purchases Discount	$455.10		
Interest Income	26.30		
Total Other Income		481.40	
Other Expense:			
Sales Discount	191.90		
Interest Expense	90.15		
Total Other Expense		282.05	
Net Addition			199.35
Net Profit			$23,352.45

Profit and Loss Statement of a Departmentalized Business

ADJUSTING AND CLOSING ACCOUNTS OF A DEPARTMENTALIZED BUSINESS The departmentalization of a business results in no essentially new problems in the adjusting and closing of the ledger. For each department, separate inventory, sales, sales returns and allowances, purchases, freight in, and purchases returns and allowances accounts are required. If the reports show only the gross profit of each department, the trading accounts for each department are closed into a trading summary account for that department. The balances of these departmental trading summary accounts are then closed into a profit and loss summary account for the enterprise as a whole. The expense accounts are closed into the latter account just as they are when a business is not departmentalized. The other income and the other expense accounts are also closed in the usual manner. If the net profit or the net loss of each department is determined, departmental income summary accounts are used, and only the net profits or the net losses of the various departments are closed into a general profit and loss summary account.

QUESTIONS

1 (a) When a business is divided into five departments and the gross profit is to be determined by departments, what accounts must be determined by departments and what accounts must be departmentalized? (b) In this case which item will be the most difficult to departmentalize?

2 Does the establishment of three departments result in three times as much posting from the purchases journal? Explain

3 When sales are classified by departments how may cash sales be recorded in order to show departmentalization?

4 Wilbur Binns operates a mercantile store in which three kinds of merchandise are sold He believes one kind is resulting in a loss What accounts could be set up to help him determine whether he should continue to carry this particular kind of merchandise?

5 Albert Dickman owns and operates the Corner Drug Store He has installed a soda fountain and a lunch counter and wishes to be able to determine the profit of the soda fountain separately (a) What new accounts should he set up? (b) What changes will be made in his books of original entry?

6 Thomas Martin a retail shoe dealer, maintains three departments, for ladies men s and children s shoes respectively It is not practicable to separate the freight and drayage costs at the time payments are made How would you apportion the total freight and drayage costs to the three departments at the end of the year?

7 The Johnson Service Station provides various services for automobile drivers It is located in a high-class residential suburb of a large city on a main traffic artery It is owned by Melvin Johnson, it regularly employs six men besides the proprietor What departmentalization would you advise? Name the departments in order, if there were to be three four, five or six departments Would you determine gross profit or net profit departmentally?

8 In departmental accounting what basis of distribution to departments should be used for the following expense items (a) freight in, (b) advertising expense, (c) depreciation of fixed assets (d) general manager s salary, (e) property taxes and (f) delivery expenses?

9 The Hughes Department Store has five departments. In the past, separate gross profit figures have been obtained for each department The general manager decides that in the future he should know the net profit of each department instead of the gross profit. What changes in the accounting procedure will be necessary?

PROBLEMS

1. The Northside Super Market has four sales departments: (1) Grocery, (2) Bakery, (3) Meats, and (4) Vegetables; and three service departments: (1) Purchasing, (2) Advertising, and (3) General Office. The following pertinent information was taken from the books:

	GROCERY	BAKERY	MEATS	VEGETABLES
Sales for the Year 1950	500,000	100,000	200,000	200,000
Purchases for the Year 1950	300,000	50,000	150,000	100,000
Inventory, January 1, 1950	105,000	1,000	15,000	10,000
Inventory, December 31, 1950	100,000	2,000	25,000	15,000

Expenses for the year were:

	ADVERTISING	SALARIES, SUPPLIES, AND INSURANCE
Purchases		28,600
Advertising		24,200
General Office		78,500
Grocery	20,000	30,400
Bakery	5,000	15,300
Meats	10,000	28,600
Vegetables	15,000	44,400
	50,000	250,000

The annual depreciation charges were $12,000. They are to be distributed as follows:

Purchasing	10%	Grocery	30%
Advertising	5%	Bakery	10%
General Office	10%	Meats	20%
		Vegetables	15%

The annual lighting charges were $3,000. These should be distributed according to the number of watts used. The number of watts used was:

Purchasing	200	Grocery	1,000
Advertising	200	Bakery	500
General Office	300	Meats	500
		Vegetables	300

The purchasing expenses are to be distributed on the basis of net purchases; the advertising expenses, on the basis of direct advertising charges; and the general office expenses, on the basis of net sales.

Instructions: (1) Prepare an expense distribution sheet.

(2) Prepare one departmentalized profit and loss statement for all departments.

2 The trial balance of the Irwin-Evans Company at the end of the fiscal year on June 30, 1950, is given below

IRWIN EVANS COMPANY
TRIAL BALANCE
JUNE 30, 1950

Cash	$ 33 500	
Accounts Receivable	100 400	
Reserve for Bad Debts		$ 2,000
Merchandise Inventory, Dept A	50 000	
Merchandise Inventory, Dept B	35 000	
Store Equipment	75 000	
Reserve for Depr of Store Equipment		22 500
Store Supplies	22 000	
Capital Stock		190 000
Surplus		61 436
Sales Department A		200 000
Sales Department B		100,000
Purchases Department A	140,000	
Purchases Department B	65 000	
Selling Expense (control)	33 600	
General Expense (control)	20 436	
Interest Income		1,500
Interest Expense	2 500	
	$577,436	$577,436

The following adjustments are to be made on June 30

Merchandise inventory, Department A	$40 000
Merchandise inventory Department B	30 000
Store supplies inventory	9,100
Depreciation of store equipment, 10%	
Reserve for bad debts an additional 1% of sales	
Provision for federal income tax, 21%	

All selling and general expenses are to be distributed to the two departments, A and B, in proportion to their sales

Instructions (1) Prepare a twelve-column work sheet with columns similar to those in the illustration on page 463 of the textbook The work sheet is to show the net profit or loss earned by each department of the business and the net profit of the entire business

(2) Prepare a profit and loss statement for each department

(3) Prepare a profit and loss statement showing the net income of the business This statement should begin with the net profits or losses earned by the two departments.

CHAPTER XXVI

BRANCH ACCOUNTING

BRANCH OPERATIONS AND BRANCH ACCOUNTING In the attempt to increase volume of sales, many business concerns have established branches. Through operation at various points, the needs of consumers are more effectively met and sales are built up. Whenever sales occur at different locations, there is need for branch accounting for income and expense. Whenever assets and liabilities are connected with branch operations, there is need for branch accounting for balance sheet items. Branch accounting goes beyond departmental accounting in utilizing a complete set of accounts in a separate set of books.

The development of branch activity by large business corporations has been one of the outstanding movements in modern business. The corporation that sells merchandise in a hundred or a thousand stores over a state or over the entire country is a well-known feature of present-day merchandising. The chain store, operating under a central management, but each store with a branch manager in charge locally, has become an accepted characteristic of the business of today.

For efficient management, it is necessary to know the profitableness of each branch. The earning capacity of various locations under the several managers is an important part of branch administration. If branch accounting shows that a branch is showing a loss or a less than average profit, that branch deserves the serious consideration of the central management.

In this chapter it will be possible to deal only with a central office and one or two branches. The fundamental considerations, however, are not materially changed when there are many branches. An understanding of the transactions of a home office and its branches should contribute to a better understanding of this current economic phenomenon.

METHODS OF BRANCH ACCOUNTING The following classification of branch accounting methods is not intended to be arbitrary. In any specific business, modifications will be found. In many cases part of the accounting system will be centralized at the home office, and other parts will be centralized at the branch. Generally, however, the methods of accounting for branches may be classified as follows:

First Method No accounting records except those of a memorandum nature are kept at the branch The books of original entry and the ledger records of the branch transactions are maintained at the home office While this method centralizes the bookkeeping at the home office it fails to provide branch managers with current up-to-date information regarding their own activities Branch managers must rely on such periodic reports as may be furnished by the home office

In nearly all cases a branch is given a *working fund* which is sufficient to meet its needs for a limited period of time The branch reports its disbursements to the home office when it needs additional funds and the home office sends it a check for the amount of the disbursements The accounting for such a working fund is similar to that used for petty cash described in Chapter XV

Second Method The branch makes entries for all transactions that it performs and then it forwards to the home office summaries of these entries For example the branch records all sales made by it and at the end of the month it sends to the home office a report showing the total to be debited to Accounts Receivable and credited to Sales. Similar reports are made for purchases cash receipts and cash disbursements The general journal entries for the month are reported individually The branch makes the periodic summaries on journal vouchers The home office files the vouchers in loose-leaf binders and uses them as mediums of posting either to an individual ledger maintained for the branch or directly to the general ledger

Third Method The branch maintains books of original entry and also a ledger In short it has a complete accounting system In the ledger is a controlling account with the home office which takes the place of the customary proprietorship accounts In the ledger of the home office is a similar controlling account with the branch A periodic report usually prepared monthly is made to the home office and from this report an entry is made in the records of the home office to record the profit or the loss of the branch This method of branch accounting will be illustrated in the remaining pages of the chapter

RECIPROCAL ACCOUNTS IN BRANCH ACCOUNTING The home office controlling account for a branch is an asset account for it represents the ownership or investment in the branch. This account is known as *Branch Ledger* and is debited for cash or other assets that the home office sends to the branch. Whenever a profit is reported by the branch the home office records this in its books

by a debit to the branch ledger account and a credit to a suitable income account. Conversely, cash or other assets received from the branch or a loss reported by the branch are recorded as credits to Branch Ledger, for the reduction in the net assets of the branch represents a decrease in the ownership interest in the branch.

The branch keeps a corresponding account known as *Home Office Ledger*. This account represents the ownership interest of the home office in the branch. The receipt of cash or other assets from the home office is recorded as a credit to Home Office Ledger. When a profit is made by the branch, Home Office Ledger is credited, for a profit increases the ownership interest of the home office. Whenever the branch sends cash or other assets to the home office or incurs a loss, Home Office Ledger is debited, since the ownership interest of the home office in the branch is decreased.

The two accounts Branch Ledger and Home Office Ledger are called *reciprocal accounts*. When the branch ledger account is debited by the home office, the home office ledger account is credited by the branch office. When the branch ledger account is credited by the home office, the home office ledger account is debited by the branch office. The debit items in the branch ledger account correspond to the credit items in the home office ledger account; the credit items in the branch ledger account correspond to the debit items in its reciprocal account. The reciprocal nature of the two accounts is shown in the following diagram:

IN THE HOME OFFICE LEDGER BRANCH LEDGER		IN THE BRANCH LEDGER HOME OFFICE LEDGER	
Cash sent to branch. Other assets sent to branch. Profit reported by branch.	Cash received from branch. Loss reported by branch.	Cash sent to home office. Loss suffered by branch.	Cash received from home office. Other assets received from home office. Profit earned by branch.

When $500 cash is sent to the branch by the home office, the entry on the home office books in general journal form is:

Branch Ledger	500	
Cash		500

and the entry on the branch books in general journal form is:

Cash	500	
Home Office Ledger		500

In a similar manner, all transactions indicated on the two reciprocal accounts might be set up in journal form.

When merchandise is shipped from the home office to the branch, the home office debits Branch Ledger and credits Shipments to Branch. The branch debits Shipments from Home Office and credits Home Office Ledger. The two accounts Shipments to Branch and Shipments from Home Office are also reciprocal accounts. They differ from the first pair of reciprocal accounts described above in that each account has entries on one side only. Shipments to Branch has credit entries only; Shipments from Home Office has debit entries only. It is obvious that the debit total of the latter account must, of necessity, equal the credit total of the former.

In the previous discussion it was assumed that shipments to the branch were made at cost. If such shipments were made at selling price or at a price higher than cost, the charge to the branch would include an element of profit that will not be realized until the merchandise is sold by the branch. Whenever shipments to the branch are made at prices higher than cost, it is necessary to adjust all the reciprocal accounts in order to know the true equity of the home office in the branch and to know the true profit or loss of the branch. In this chapter all shipments will be at cost, thus making such adjustments unnecessary.

ILLUSTRATION OF ACCOUNTING FOR A BRANCH The accounting procedure of a home office and a branch does not differ from the usual accounting procedure except for the introduction of the reciprocal accounts described above. The new branch ledger accounts, Home Office Ledger and Shipments from Home Office, and their reciprocal accounts in the home office ledger, Branch Ledger and Shipments to Branch, constitute the chief distinguishing characteristics of branch accounting. To illustrate branch accounting, the following summary of the transactions performed by a branch is given:

1. A home office opened a branch and sent it $5,000 in cash and $15,000 worth of merchandise, with which to start operations.
2. The branch purchased merchandise on account for $5,000 during the period.
3. It sold $8,000 worth of merchandise for cash and $4,000 worth on account.
4. It paid operating expenses amounting to $2,500.
5. It collected $3,000 on accounts receivable.
6. It sent to the home office $10,000 in cash.

The branch recorded the transactions for the month in the manner illustrated by the following journal entries:

(1)

Cash	5,000	
Shipments from Home Office	15,000	
Home Office Ledger		20,000
Received cash and merchandise from the home office with which to start operations.		

(2)

Purchases	5,000	
Accounts Payable		5,000
Purchased merchandise on account.		

(3)

Cash	8,000	
Accounts Receivable	4,000	
Sales		12,000
Sold merchandise for cash and on account.		

(4)

Expenses	2,500	
Cash		2,500
Paid operating expenses with cash.		

(5)

Cash	3,000	
Accounts Receivable		3,000
Made collections on credit sales.		

(6)

Home Office Ledger	10,000	
Cash		10,000
Sent cash to the home office.		

Of the previous six transactions only the first and the last involve transactions between the home office and the branch. The other four transactions involve only the branch as one party and outside business units as the second parties.

The merchandise inventory of the branch at the end of the month amounted to $12,000. The journal entries required to adjust the inventory and to close the books of the branch are as follows:

(a)		
Merchandise Inventory	12 000	
Profit and Loss Summary		12,000
To record the ending merchandise inventory		
(b)		
Profit and Loss Summary	20,000	
Shipments from Home Office		15,000
Purchases		5,000
To close the accounts with merchandise shipped from the general office and merchandise purchased		
(c)		
Sales	12 000	
Profit and Loss Summary		12,000
To close the sales account		
(d)		
Profit and Loss Summary	2,500	
Expenses		2,500
To close the account with operating expenses		
(e)		
Profit and Loss Summary	1,500	
Home Office Ledger		1,500
To close the profit shown by the profit and loss summary account into the home office ledger account		

The profit and loss statement and the balance sheet that the branch prepared for the general office were as follows

BRANCH PROFIT AND LOSS STATEMENT

FOR MONTH ENDED JANUARY 31, 1949

Sales		12,000
Cost of Goods Sold		
Purchases	5,000	
Shipments from Home Office	15,000	
Mdse Available for Sale during Month	20,000	
Less Mdse Inventory, January 31, 1949	12,000	
Cost of Goods Sold		8,000
Gross Profit from Sales		4,000
Operating Expenses		2,500
Net Profit from Operations		1,500

Profit and Loss Statement of a Branch

BRANCH BALANCE SHEET
JANUARY 31, 1949

ASSETS		LIABILITIES AND PROPRIETORSHIP	
Cash	3,500	Accounts Payable	5,000
Accounts Receivable	1,000	Home Office Ledger	11,500
Merchandise Inventory	12,000		
Total Assets	16,500	Total Liab. and Prop.	16,500

Balance Sheet of a Branch

The general office made the following entries in its books to record its transactions with the branch: (These entries are designated by number or letter for comparison with the corresponding entries made by the branch.)

(1)

Branch Ledger	20,000	
Cash		5,000
Shipments to Branch		15,000
Sent cash and merchandise to the branch with which to start operations.		

(6)

Cash	10,000	
Branch Ledger		10,000
Received cash from the branch.		

(e)

Branch Ledger	1,500	
Profit of Branch		1,500
To record the profit reported by the branch.		

Transaction (e), shown both in the branch journal illustration and in the general office illustration, records the profit of the branch and the taking up of the profit by the general office. Whenever profits or losses are determined by making branch statements, it is necessary that the general office record the increase or decrease in branch investment by a journal entry.

The transactions illustrated on pages 475, 476, and 477 include two sets of reciprocal accounts: (1) Home Office Ledger and Branch Ledger and (2) Shipments from Home Office and Shipments to Branch. The first set are balance sheet accounts; the second set are profit and loss statement accounts. There will be as many groups of these four accounts as there are branches.

CONSOLIDATED STATEMENTS It is desirable to have consolidated statements showing the combined results of the home office and the branch activities for each period. A consolidated profit and loss statement is prepared by the use of a work sheet. For example, the work sheet used by the home office mentioned in the preceding discussion is shown below:

HOME OFFICE AND BRANCH
WORK SHEET FOR CONSOLIDATED PROFIT AND LOSS STATEMENT
JANUARY 31, 1949

	Home Office Ledger	Branch Ledger	Eliminations		Cons Profit and Loss Statement
			Dr	Cr.	
Sales	35,000	12,000			47,000
Cost of Goods Sold					
Mdse Inv , January 1	30,000				30,000
Purchases	40,000	5,000			45,000
Shipments from Home Office		15,000		15,000	
	70,000				
Less Shipments to Branch	15,000		15,000		
Mdse Available for Sale	55,000	20,000			75,000
Less Mdse Inv , Jan 31	35,000	12,000			47,000
Cost of Goods Sold	20,000	8,000			28,000
Gross Profit on Sales	15,000	4,000			19,000
Operating Expenses	6,000	2,500			8,500
Net Profit	9,000	1,500	15,000	15,000	10,500

Work Sheet for a Consolidated Profit and Loss Statement

On the work sheet the accounts Shipments to Branch and Shipments from Home Office were eliminated since they did not represent transactions with outsiders. The elimination of these items made possible the preparation of a consolidated statement that showed the results of the operations of the home office and the branch as one organization. The consolidated report that was prepared from the Consolidated Profit and Loss Statement column of the work sheet was as follows:

HOME OFFICE AND BRANCH
CONSOLIDATED PROFIT AND LOSS STATEMENT
FOR MONTH ENDED JANUARY 31, 1949

Sales		47,000
Cost of Goods Sold:		
Merchandise Inventory, January 1, 1949	30,000	
Purchases	45,000	
Merchandise Available for Sale	75,000	
Less Mdse. Inventory, January 31, 1949	47,000	
Cost of Goods Sold		28,000
Gross Profit on Sales		19,000
Operating Expenses		8,500
Net Profit from Operations		10,500

Consolidated Profit and Loss Statement

In a similar manner a consolidated balance sheet may be prepared at the end of the period from a work sheet. For instance, the home office mentioned in the preceding discussion used the following work sheet in the preparation of its consolidated balance sheet.

HOME OFFICE AND BRANCH
WORK SHEET FOR CONSOLIDATED BALANCE SHEET
JANUARY 31, 1949

	Home Office Ledger	Branch Ledger	Eliminations		Consolidated Balance Sheet
			Dr.	Cr.	
Assets:					
Cash	26,000	3,500			29,500
Accounts Receivable	23,000	1,000			24,000
Merchandise Inventory	35,000	12,000			47,000
Branch Ledger	11,500			11,500	
Total Assets	95,500	16,500			100,500
Liab. & Proprietorship:					
Accounts Payable	20,000	5,000			25,000
Home Office Ledger		11,500	11,500		
Capital Stock	50,000				50,000
Surplus	25,500				25,500
Total Liab. and Prop.	95,500	16,500	11,500	11,500	100,500

Work Sheet for a Consolidated Balance Sheet

On the work sheet the accounts Branch Ledger and Home Office Ledger were eliminated so that a consolidated report showing the assets, the liabilities, and the proprietorship of the home office and the branch as one organization could be prepared. The consolidated report that was prepared from the Consolidated Balance Sheet column of the work sheet is illustrated below:

HOME OFFICE AND BRANCH
CONSOLIDATED BALANCE SHEET
JANUARY 31, 1949

Assets		Liabilities and Proprietorship	
Cash	29,500	Accounts Payable	25,000
Accounts Receivable	24,000	Capital Stock	50,000
Merchandise Inventory	47,000	Surplus	25,500
Total Assets	100,500	Total Liab and Prop	100,500

Consolidated Balance Sheet

The consolidation of the statements of several branches with that of the home office would be accomplished in a manner similar to that illustrated above with a single branch The only difference would be a lateral expansion of the work sheet Instead of one column for Branch Ledger, there would be as many columns as there were branches.

VALUATION OF THE MERCHANDISE INVENTORY OF A BRANCH The merchandise inventory reported on the balance sheet of the branch is usually valued at the same prices at which goods are billed by the home office to the branch These prices are frequently higher than cost because the consigned merchandise is valued at selling prices In all cases in which this inventory valuation is not on the basis of cost or market value, whichever is the lower, a reserve sufficient to reduce the inventory to its proper valuation is set up on the books of the home office. Upon the consolidation of the balance sheet of the branch with that of the home office, this reserve is treated as a deduction from the branch inventory, and the branch inventory is reported at its net value in the consolidated balance sheet.

When shipments to branches are billed at prices higher than cost, adjustments of the branch income statement figures must be made if the true branch profit is to be known. It is simpler to follow the practice illustrated in this chapter and price shipments at cost, thus avoiding price adjustments in inventories and shipments accounts.

ANALYSES OF INTERNAL OPERATIONS With the ever-increasing size of business units, the need for internal accounting is likewise growing. It is necessary to account separately for the various parts of which these large units are made up. This accounting involves first a breakdown of the accounts, departmentally or by branches, followed by a consolidation to show the unit as a whole.

In the large five-and-ten-cent store chains, for example, there is first a breakdown by commodities sold and second a breakdown by branches selling these commodities. For efficient administration of these large mercantile establishments, it is necessary to have the departmental analysis and the branch analysis. More and more attention will be directed in the future to accounting for small units under a central administration.

QUESTIONS

1. Distinguish between controlling accounts and reciprocal accounts. Give an illustration of reciprocal accounts. Give four illustrations of controlling accounts.

2. What amount on the branch balance sheet appears also on the home office balance sheet?

3. What two items on the balance sheet of the home office appear as a single item on the balance sheet of the branch?

4. How does closing the accounts of a branch differ from closing the accounts of the home office?

5. The ledger of a branch office may contain two accounts with incoming merchandise. (a) What are these accounts called? (b) Why are both kept?

6. Why are the accounts Shipments to Branch and Shipments from Home Office needed in addition to Sales and Purchases in preparing the profit and loss statements for the branch and the home office?

7. The following branch ledger account was taken from the ledger kept in the home office of B. K. Abbott Company. Give the corresponding entries that were made in the records of the Lakeside Branch.

LAKESIDE BRANCH LEDGER

1950					1950				
Jan.	3	Cash		4,000	Feb.	28	Loss		800
	31	Profit		1,200	Mar.	15	Cash		1,200
Feb.	13	Furn. and Fix.		2,000					
Mar.	31	Profit		2,000					

(3) Close the branch office income and expense accounts to Profit and Loss Summary and the balance of Profit and Loss Summary to Home Office Ledger. Record the branch profit in the home office "T" accounts.

(4) Prepare a profit and loss statement and a balance sheet for the branch.

2. The trial balance of the home office and that of the branch of the Rogers Corporation on June 30, 1950, the close of a monthly fiscal period, are given below:

	Home Office		Branch	
	Dr.	Cr.	Dr.	Cr.
Cash	100,000		20,000	
Merchandise Inventory	150,000		75,000	
Branch Ledger	80,000			
Accounts Payable		40,000		10,000
Home Office Ledger				80,000
Capital Stock		200,000		
Surplus		50,000		
Sales		175,000		100,000
Shipments to Branch		60,000		
Purchases	140,000		15,000	
Shipments from Home Office			60,000	
Operating Expenses Control	55,000		20,000	
	525,000	525,000	190,000	190,000

Merchandise Inventory, June 30: home office, $130,000; branch, $80,000.

Instructions: (1) Prepare work sheets for a consolidated profit and loss statement and a consolidated balance sheet. Adjust the home office ledger account of the branch for the branch profit, and the branch ledger and surplus accounts of the home office for the branch profit. Also adjust surplus for the home office profit.

(2) Prepare a consolidated profit and loss statement and a consolidated balance sheet.

3. Snyder, Inc., of New York, operates a branch in Chicago. On April 30, 1950, the post-closing trial balance of the home office and that of the branch were as follows:

	Home Office		Branch	
	Dr.	Cr.	Dr.	Cr.
Cash	30,000		2,000	
Merchandise Inventory	24,000		10,000	
Branch Ledger	12,000			
Home Office Ledger				12,000
Capital Stock		50,000		
Surplus		16,000		
	66,000	66,000	12,000	12,000

The transactions and adjustments for May were as follows:

(a) Merchandise shipped from the home office to the branch, $20,000

(b) All sales were for cash home office, $40,000, branch office, $20,000

(c) The following cash expenditures were made

	Home Office	Branch
Merchandise purchases	$46 800	
Operating expenses	4,000	$2,200
	$50 800	$2,200

(d) Inventories

	Home Office	Branch
Merchandise	$20,000	$12,000

Instructions (1) Open "T" accounts as follows for the home office Cash, Merchandise Inventory Branch Ledger, Capital Stock, Surplus Profit and Loss Summary, Sales Shipments to Branch, Purchases, Operating Expenses Control, and Profit or Loss of Branch Open the following "T" accounts for the branch Cash Merchandise Inventory, Home Office Ledger, Profit and Loss Summary, Sales, Shipments from Home Office, and Operating Expenses Control

(2) Record the beginning balances and the transactions and adjustments for May directly in the "T" accounts (no journal entries required)

(3) Close the income and expense accounts of the branch ledger to the profit and loss summary account Close the balance of Profit and Loss Summary to Home Office Ledger

(4) Record branch profit or loss in the home office books Close the home office income and expense accounts to the profit and loss summary account and close the balance of Profit and Loss Summary to Surplus

(5) Prepare work sheets for the consolidated profit and loss statement and the consolidated balance sheet

CHAPTER XXVII

ACCOUNTING FOR MANUFACTURING

DESCRIPTION OF MANUFACTURING OPERATIONS

Thus far, consideration has been given to the accounting procedures used by service and mercantile enterprises. Mercantile enterprises obtain from manufacturing concerns the merchandise that they sell. Manufacturers employ labor and use machinery in converting raw materials into finished goods. In thus changing the form of the commodities, their activities differ from those of merchandisers.

The commodities purchased by a manufacturer are his raw materials, but they were finished goods to the manufacturer from whom he bought them. Flour is raw material to the baker but finished goods to the miller. Steel plate is raw material to the automobile manufacturer but finished goods to the steel producer. The designation *raw materials* or *finished goods* has significance only in connection with a specific manufacturer and his relation to the commodity.

The extent of business activity in manufacturing is apparent to anyone who contemplates the vast variety of changes in form that take place in producing the commodities and the services used by society. Manufacturing provides work for a large percentage of the employed, uses a large share of the capital equipment of the country, and makes possible a substantial portion of the profit shown on profit and loss statements.

Manufacturing activities require separate treatment in the accounts. Statements showing manufacturing operations are needed by business management. On manufacturing statements, payrolls for factory labor and expenses incident to the use of machinery are important items. Other expenses found in manufacturing include power to run the machinery, maintenance to keep it in condition, and supervision to plan and direct production.

Manufacturing adds many new items to the balance sheet and the profit and loss statement. New assets and liabilities are valued in new balance sheet accounts, and new operating activities are measured in new expense accounts. The general ledger is expanded to take care of the additional accounts, and new subsidiary ledgers account for much of the manufacturing detail. The treatment of these accounts, together with the recording and the summarizing of transactions affecting the accounts, constitutes the subject matter of this chapter and the two following chapters.

BALANCE SHEET ACCOUNTS Each of the asset classifications on the balance sheet contains additional accounts as a result of the manufacturing function Under Current Assets inventory accounts are added, under 'Fixed Assets new accounts for various kinds of machinery and equipment are shown, under ' Intangible Assets accounts with such assets as patents and copyrights may be reported, and under Deferred Charges accounts with supplies and prepaid expenses that are characteristic of the factory are shown The liability accounts of a manufacturing enterprise are less different from those of other businesses but even in this classification there is greater likelihood of bonds payable secured by mortgages on the manufacturing plant

Current Assets The single inventory of merchandise found on the balance sheet of a merchandising business is displaced by three inventories representing (1) goods in the state in which they were acquired (2) goods in the process of manufacture and (3) goods in the state in which they are to be sold These inventories are called respectively *raw materials goods in process* and *finished goods* The costs of operating the factory including labor and the various manufacturing expenses are added to the cost of the raw materials in determining the cost of goods in process and finished goods These inventories are illustrated below

MERCHANDISING		MANUFACTURING		
Merchandise Inventory	$15 000	Inventories		
		Finished Goods	$20 000	
		Goods in Process	15 000	
		Raw Materials	30 000	$65 000

Fixed Assets Because of the extensive use of machinery in manufacturing the percentage of capital invested in fixed assets tends to be larger than that of the trading concern The building or buildings housing this machinery must be adapted to that purpose and are therefore usually owned by the manufacturer The number of accounts with machinery and equipment is sufficient to warrant the use of a machinery and equipment subsidiary ledger

The subsidiary ledger carrying an account with each individual piece of machinery is called the *plant ledger* In connection with the heading of each account space is provided for recording useful information regarding the particular machine In this space are commonly indicated the technical title and description of the machine the size and weight, the name of the vendor from whom the machine was

purchased, the rated output, and other useful information. Beneath the heading the items that made up the total cost of the machine, such as the price paid the vendor, the transportation cost, and the installation cost, are listed. Space is also provided for accumulating the periodic increase in the reserve for depreciation applicable to the machine and for recording the ever-diminishing book value of the machine. Such a record of each machine is thought to give better control over the machinery used and to provide a more accurate determination of the periodic depreciation charges. Fixed asset ledger accounts have been illustrated in Chapter XIV, page 240.

Intangible Assets. The manufacturer may have exclusive rights known as *patents*, which possess value during their life. Patents are granted by the federal government in order to encourage the invention of mechanical devices. On the balance sheet patents are reported at cost less amortization. The life of a patent is seventeen years. The useful life of the patent may often be less because of the subsequent invention of new and improved devices. The estimated annual decrease in the value of the patent becomes a yearly manufacturing expense. Thus a patent acquired at a cost of $50,000 and having an estimated useful life of ten years would be annually reduced in value $5,000. The amount of this reduction would be charged to the manufacturing cost of each year.

Exclusive rights, known as *copyrights*, to publish written material are granted for a period of twenty-eight years; but they often have a useful life of a much shorter period. Because of the uncertainty regarding their useful life, these intangible assets are often written off the books over a short period of time by charges to operations.

Deferred Charges. Manufacturing activities add a number of new items to the deferred charges. Factory supplies on hand that were purchased to maintain and service machinery, unexpired insurance of various kinds, largely due to the use of machinery, and unused services that assist in manufacturing represent assets commonly found on the balance sheets of manufacturing enterprises. They also entail additional adjusting entries to be made at the end of each accounting period.

CAPITAL CHARGES AND REVENUE CHARGES

Quite often, especially in accounting for manufacturing enterprises, it becomes difficult to distinguish between expenditures that add to the value of fixed assets and those that are chargeable as current expenses. All expenditures incurred up to the time at which a

fixed asset is ready for use may be considered a part of the cost of the asset; they may therefore be debited to the asset account. For example, the following items may be considered as the original cost of a machine purchased for use in a factory: (1) the purchase price as indicated by the purchase invoice, (2) the freight and drayage paid for the transportation of the machine from the place of business of the seller to the factory of the purchaser, (3) the cost of unpacking and setting up the machine, (4) the cost of installation (including the cost of constructing a metal or a concrete base), (5) the cost of testing to determine the usefulness of the machine, and (6) the cost of any changes or alterations necessary before the machine is in proper condition for operation.

After the fixed asset is put into service, only those expenditures that increase its life or efficiency may be added to its value. A machine with an estimated life of four years may be overhauled, or worn parts may be replaced, with the result that the life of the machine may be increased to five years. The cost of the overhauling or the replacement, to the extent of the value added through the increased life of the machine, may be added to the original cost by charging the asset account. Such expenditures are said to be *charges to capital*. For example, assume that the replacement of certain moving parts, at a cost of $400, increases the output of a certain machine from 200 to 300 units per day The entry for such an expenditure is shown below:

Machinery and Equipment	400	
Cash		400

As an asset continues in use, some expenditures are necessary to maintain it in an efficient operating condition. A building requires repairs and paint, and taxes and insurance premiums must be paid. Machinery requires repairs from time to time, as well as supplies necessary for its operation, such as oil; taxes and insurance premiums must also be paid. Expenditures of this type, representing a part of the necessary cost of using the asset during the current period, should be charged as part of the current operating expenses of the business. These expenditures are said to be *charges to revenue* since they are deductible from the revenue of the period.

Unless care is used, capital expenditures and revenue expenditures may be confused. For example, an expenditure which, if its effects were carefully analyzed, would be found to be necessary in the maintenance of a particular asset may be considered an addition to the value of the asset. On the other hand, a real addition to capital may be mistaken for an operating expense. The distinction between capital

expenditures and revenue expenditures is an important one, since the reporting of manufacturing costs, the determination of the profit for each period, and the presentation of the proprietorship from time to time depend on the accuracy with which this distinction is made.

PROFIT AND LOSS STATEMENT ACCOUNTS The profit and loss statement of a manufacturing enterprise contains groups of items representing selling expenses and general and administrative expenses similar to those of a trading enterprise. In addition, it contains an entirely new group of items representing purely manufacturing activities. This group includes the cost of raw materials put into production; the cost of labor used directly in converting the raw materials into finished goods; and the expenses that arise from labor not used directly and from all the facilities employed in the process. For convenience in analysis, these threefold groups are known as *materials, direct labor,* and *overhead.* Materials represent the delivered cost of raw materials that are used in producing the finished article. Direct labor represents the wages of the workmen who devote their time to converting the raw materials into goods in process and finished goods. Overhead represents all the other expenses of operating the factory that are not included in the first two items.

The overhead items represent perhaps the most important group in present-day manufacturing. With increasing use of machinery, much of the factory payroll is related to the care and upkeep of the machinery rather than being applied directly to raw materials. Overhead includes not only taxes, insurance, depreciation, and maintenance incident to the use of machinery but also all expenses of housing the machinery and furnishing satisfactory working conditions for employees. Whatever expenses other than direct materials and labor are involved in the manufacturing process are included in the overhead group.

THE COST OF GOODS MANUFACTURED SCHEDULE Since manufacturing functions differ from trading functions, it is customary to separate the profit and loss statement accounts having to do with manufacturing from those having to do with trading. The manufacturing group is frequently placed in a separate schedule to avoid the presentation of an extended profit and loss statement. This schedule gives the cost of the goods manufactured during the latest period. It is therefore comparable to that section of the profit and loss statement of a merchandising enterprise that shows the cost of the goods purchased. When the schedule is used, the profit and loss

statement of the manufacturing concern is similar to that of a trading company except for a reference to the supporting schedule showing the cost of the goods manufactured.

Other schedules may be used to simplify the principal accounting statements by removing detail from them. In large enterprises having many accounts, it is customary to have a number of schedules supporting items on the balance sheet and the profit and loss statement. For example, the cash balance may be supported by a schedule giving the balances on deposit in several banks; the accounts receivable, by a schedule showing the names of the customers and the balances owed; the sales, by a schedule showing sales by territories or by commodities; and the selling expenses and general expenses, by schedules showing the individual items.

The schedule showing the cost of goods manufactured provides all of the information incident to the manufacturing activities of the period. In addition to beginning and ending inventories of raw materials and goods in process, it contains purchases of new materials, labor items, and all manufacturing expenses.

THE PERIOD COVERED BY THE PROFIT AND LOSS STATEMENT Manufacturing operations frequently make advisable the choice of a fiscal year that differs from the calendar year. It is not uncommon for manufacturing concerns to choose as their fiscal year any period of twelve months that best fits in with the recurring cycle of their manufacturing activities. An attempt is usually made to make the close of the fiscal year come at a relatively inactive period.

Such a choice of fiscal year is called the *natural business year*. The use of the natural business year tends to make the interpretation of statements less complicated and more informative.

For control of manufacturing operations, it is advisable to have a much shorter period than a year. It is customary therefore to have monthly interim reports for the use of management.

ADJUSTING AND CLOSING MANUFACTURING ACCOUNTS The adjusting of manufacturing accounts is similar to the adjusting of trading accounts. When inventories of supplies, such as factory supplies, exist, and when expenses, such as insurance, have been prepaid, the assets are set up as deferred charges and only the amounts actually consumed are charged to manufacturing. When unrecorded liabilities, such as accrued wages of factory workers and accrued taxes, exist, the liabilities and the related expenses should be provided for by adjusting entries.

When the accounts of a manufacturing enterprise are to be closed, all the accounts pertaining to the manufacturing process, which are ordinarily presented in the schedule of the cost of goods manufactured, are closed first. It is advisable to close these accounts into an account called *Manufacturing Summary*. The balance of this account is the cost of the goods manufactured, which corresponds to the cost of the purchases and freight in of a trading enterprise. The balance of the manufacturing summary account is closed into the profit and loss summary account. The items appearing on the profit and loss statement are then closed, as in the case of a trading enterprise, in the order in which they appear on the report.

The relation of the manufacturing summary account to the profit and loss summary account is shown below:

MANUFACTURING SUMMARY

Beginning Inventories of Raw Materials and Goods in Process	Ending Inventories of Raw Materials and Goods in Process
Materials Purchased	To Profit and Loss Summary
Labor	
Manufacturing Expenses	

PROFIT AND LOSS SUMMARY

From Manufacturing Summary	

The items appearing in the manufacturing summary account would be the same as those found on the schedule of cost of goods manufactured. Those appearing in the profit and loss summary account would correspond to the items on the profit and loss statement.

THE WORK SHEET OF A MANUFACTURING ENTERPRISE An additional pair of columns is added to the work sheet of a manufacturing enterprise in order to segregate the accounts used in determining the cost of the goods manufactured. All items that enter into the cost of the goods manufactured, or that are deductions from the cost of the goods manufactured, are entered in the Manufacturing Schedule columns. The difference between the totals of the Manufacturing Schedule columns is the cost of the goods manufactured. This amount is transferred to the Profit and Loss Statement columns.

The use of the Adjustments columns is similar to the use of those in the work sheet illustrated in Chapter X. The chief difference is the addition of new items having to do with manufacturing operations.

Totals Brought Forward	614,500	681,850	91,800	101,410	202,450	2,000	2,000	300,000	420,730	400,140
Sundry Factory Expense	1,600				1,600					
Sales Salaries and Commissions	15,000		(r) 600				15,600			
Traveling Expense	5,000						5,000			
Advertising Expense	14,500						14,500			
Shipping Dept. Salaries	3,500		(r) 80				3,580			
Sundry Shipping Dept. Exp.	500						500			
Officers' Salaries	16,500						16,500			
Office Salaries	6,000						6,000			
Sundry Office Expense	2,050						2,050			
Purchases Discount		1,500						1,500		
Bond Interest Expense	4,200		(q) 1,400				5,600			
	683,350	683,350								
Loss from Bad Debts			(a) 1,490				1,490			
Manufacturing Summary			(c) 30,000	(b) 36,850	30,000	36,850				
			(e) 15,000	(d) 20,000	15,000	20,000				
Profit and Loss Summary			(g) 20,000	(f) 34,000			20,000	34,000		
Depr. of Office Equipment			(h) 1,600				1,600			
Depr. of Ship. Dept. Equip.			(i) 1,200				1,200			
Depr. of Machinery and Equip.			(j) 12,000		12,000					
Depreciation of Buildings			(k) 4,000		4,000					
Patents Expense			(l) 2,000		2,000					
Factory Supplies Used			(m) 5,000		5,000					
Shipping Dept. Supplies Used			(n) 3,320				3,320			
Office Supplies Used			(o) 4,000				4,000			
Expired Insurance			(p) 1,800		1,800					
Interest Payable				(q) 1,400						1,400
Wages Payable				(r) 1,630						1,630
			195,290	195,290						
Cost of Goods Manufactured						215,000	215,000			
					273,850	273,850	317,940	335,500	420,730	403,170
Provision for Income Tax							4,600			4,600
Net Income after Provision for Income Tax							12,960			12,960
							335,500	335,500	420,730	420,730

Ten-Column Work Sheet of a Manufacturing Enterprise

PREPARING THE PERIODIC SUMMARY The preparation of the periodic summary may be illustrated from the records of The Deane Manufacturing Company. At the end of the fiscal year, September 30, 1949, a trial balance is taken. This trial balance is entered in the first pair of amount columns on the work sheet in the manner shown in the illustration on pages 492 and 493. The accounts are then examined, and the additional data that will be needed in adjusting the accounts to make them show present facts are obtained. The data for the adjustments are

1 Reserve for bad debts, ½ of 1% of net sales	
2 Inventories	
a. Finished goods	$34,000 00
b. Goods in process	20,000 00
c Raw materials	36,850 00
3 Depreciation and amortization	
a Office equipment	10%
b Shipping department equipment	10%
c Machinery and equipment	10%
d Buildings	5%
e Patents	2,000 00
4 Deferred charges to expense	
a Factory supplies inventory	3,000 00
b Shipping dept supplies inventory	1,680 00
c Office supplies inventory	1,000 00
d Prepaid insurance	1,200 00
5 Accrued expenses	
a Interest accrued on bonds payable	1,400 00
b Payroll	
Direct labor	750 00
Indirect labor	200 00
Sales salaries	600 00
Shipping department salaries	80 00

Property taxes, expired insurance, and building expenses are chargeable to manufacturing

The treatment of these adjustments on the work sheet, except those for the goods in process, the raw materials, and the finished goods inventories, is similar to that explained and illustrated in earlier chapters. The goods in process inventory account and the raw materials inventory account are adjusted through the manufacturing summary account because all manufacturing expenses are summarized in this account.

The raw materials inventory at the beginning of the fiscal period has become a part of the cost of goods manufactured. Raw Materials Inventory is therefore credited for the value of the beginning inventory,

$30,000, and Manufacturing Summary is debited for the same amount. The raw materials inventory at the end of the period must be recorded as an asset and must be shown as a deduction from the cost of goods manufactured. Raw Materials Inventory is therefore debited for $36,850, and Manufacturing Summary is credited for the same amount.

In a like manner, the inventory of goods in process at the beginning of the period must be transferred to the manufacturing summary account, and the goods in process at the end of the period must be deducted from the cost of goods in process and must be shown as an asset. The first transfer is accomplished by crediting Goods in Process Inventory and by debiting Manufacturing Summary for $15,000. The second transfer is accomplished by debiting Goods in Process Inventory and by crediting Manufacturing Summary for $20,000.

The finished goods inventory account is adjusted through the profit and loss summary account in the same manner as the merchandise inventory of a mercantile business. The finished goods inventory at the beginning of the period is transferred to the profit and loss summary account by crediting Finished Goods Inventory for $20,000 and by debiting Profit and Loss Summary for the same amount. The finished goods inventory at the end of the period is recorded by debiting Finished Goods Inventory for $34,000 and by crediting Profit and Loss Summary for the same amount.

After the Adjustments columns have been totaled to prove the accuracy of the adjusting entries, all items representing the cost of goods manufactured are extended into the columns headed "Manufacturing Schedule." These items include the raw materials purchases, the freight and cartage in, the purchases returns and allowances, all manufacturing expenses, and the costs and deductions from costs arising from the inventories of raw materials and goods in process at the beginning and the end of the fiscal period. The balance of each item, except the items written on a line with "Manufacturing Summary," is extended into the proper column. The items appearing opposite "Manufacturing Summary" represent the inventories of raw materials and goods in process at the beginning and the end of the fiscal period. As will be seen later, these inventories are used in the manufacturing schedule and are therefore entered individually in the Manufacturing Schedule columns. The difference between the totals of the Manufacturing Schedule columns represents the cost of goods manufactured. This amount is carried forward into the Profit and Loss Statement Dr. column.

The balances of the income accounts are extended into the Profit and Loss Statement Cr. column, and the balances of all expense ac-

counts that do not represent manufacturing expenses are extended into the Profit and Loss Statement Dr column The amounts of the assets the liabilities and the proprietorship are carried forward into the proper columns in the same manner as they are in the preparation of a work sheet for a trading concern The amount that must be provided for income tax is then calculated The provision for income tax and the net income after provision for income tax are then entered in the Profit and Loss Statement Dr column and the Balance Sheet Cr column and the columns are totaled and ruled

The profit and loss statement of The Deane Manufacturing Company is shown in the illustration on page 497 All the data required for this statement including the cost of goods manufactured have been obtained from the Profit and Loss Statement columns of the work sheet The cost of goods manufactured is reported as a single amount, and reference is made to the schedule that shows how the amount was determined

The cost of goods manufactured schedule is shown on page 498 This schedule contains the same amounts as those shown in the Manufacturing Schedule columns of the work sheet The amounts are arranged however so that the desired information can be obtained readily The right hand amount column contains the beginning goods in process inventory To this amount is added the total of the elements of manufacturing cost for the period and from this sum the ending goods in process inventory is subtracted to obtain the cost of the goods completed during the year The amount column second from the right contains the three elements of cost the materials used, the direct labor and the total of the manufacturing expenses.

The cost of raw materials consumed is made up of the beginning inventory of raw materials the purchases made during the period the freight and cartage on the purchases less the purchases returns and allowances and the ending inventory The manufacturing expenses totaling \$60 600 consist of all expenses incident to operating the factory except labor applied directly to the conversion of raw materials into finished goods.

The order in which the items are listed on the schedule follows the sequence of operations in the factory At the beginning of a period there are unfinished goods represented by the beginning goods in process inventory During the period materials labor and manufacturing expenses are added to this inventory At the end of the period the goods in process are inventoried This amount is subtracted from the sum of the beginning goods in process inventory and the materials,

THE DEANE MANUFACTURING COMPANY
PROFIT AND LOSS STATEMENT
FOR YEAR ENDED SEPTEMBER 30, 1949

Income from Sales:			
Gross Sales		$300,000	
Less Sales Returns and Allowances		2,000	
Net Sales			$298,000
Cost of Goods Sold:			
Finished Goods Inventory, October 1, 1948		$ 20,000	
Cost of Goods Mfd. (Schedule No. 1)		215,000	
Total Cost of Fin. Goods Available for Sale		$235,000	
Less Finished Goods Inv., Sept. 30, 1949		34,000	
Cost of Goods Sold			201,000
Gross Profit on Sales			$97,000
Operating Expenses:			
Selling Expenses:			
Sales Salaries and Commissions	$15,600		
Traveling Expense	5,000		
Advertising Expense	14,500		
Total Selling Expenses		$35,100	
Shipping Department Expenses:			
Shipping Dept. Salaries	$3,580		
Depr. of Ship. Dept. Equip.	1,200		
Shipping Dept. Supplies Used	3,320		
Sundry Ship. Dept. Expense	500		
Total Shipping Dept. Expenses		8,600	
General Expenses:			
Officers' Salaries	$16,500		
Office Salaries	6,000		
Depr. of Office Equipment	1,600		
Office Supplies Used	4,000		
Loss from Bad Debts	1,490		
Sundry Office Expense	2,050		
Total General Expenses		31,640	
Total Operating Expenses			75,340
Net Profit from Operations			$21,660
Other Income:			
Purchases Discount		$1,500	
Other Expense:			
Bond Interest Expense		5,600	
Net Deduction			4,100
Net Profit before Provision for Income Tax			$17,560
Less Provision for Income Tax			4,600
Net Profit after Provision for Income Tax			$12,960

Profit and Loss Statement of a Manufacturing Enterprise

labor, and manufacturing expenses. The result is the cost of the goods manufactured.

THE DEANE MANUFACTURING COMPANY

SCHEDULE NO 1 — COST OF GOODS MANUFACTURED
TO ACCOMPANY PROFIT AND LOSS STATEMENT
FOR YEAR ENDED SEPTEMBER 30, 1949

Goods in Process Inventory, October 1, 1948				$15,000
Raw Materials				
Inventory, October 1, 1948			$30,000	
Purchases	90,000			
Freight and Cartage In	2,500			
Delivered Cost of Purchases		$92,500		
Less Returns and Allowances		2,000		
Net Purchases			90,500	
Total Cost of Materials Available for Use			$120,500	
Less Inventory, September 30, 1949			36,850	
Cost of Materials Consumed			$83,650	
Direct Labor			75,750	
Manufacturing Expenses				
Indirect Labor		$ 7,200		
Superintendence		8,000		
Maintenance and Repairs		6,000		
Heat, Light, and Power		9,000		
Property Taxes		4,000		
Depr of Machinery and Equip		12,000		
Depreciation of Buildings		4,000		
Patents Expense		2,000		
Factory Supplies Used		5,000		
Expired Insurance		1,800		
Sundry Factory Expense		1,600		
Total Manufacturing Expenses			60,600	
Total Manufacturing Costs				220,000
Total Goods in Process during Period				$235,000
Less Goods in Process Inventory, September 30, 1949				20,000
Cost of Goods Manufactured				$215,000

Cost of Goods Manufactured Schedule

THE DEANE MANUFACTURING COMPANY
BALANCE SHEET
SEPTEMBER 30, 1949

ASSETS			
Current Assets:			
Cash		$ 9,000	
Accounts Receivable	$30,000		
Less Res. for Bad Debts	1,840	28,160	
Inventories:			
Finished Goods	$34,000		
Goods in Process	20,000		
Raw Materials	36,850	90,850	
Total Current Assets			$128,010
Fixed Assets:			
Office Equipment	$16,000		
Less Reserve for Depr.	6,100	$ 9,900	
Shipping Dept. Equipment	$12,000		
Less Reserve for Depr.	4,400	7,600	
Machinery and Equipment	$120,000		
Less Reserve for Depr.	46,000	74,000	
Buildings	$80,000		
Less Reserve for Depr.	16,000	64,000	
Land		40,000	
Total Fixed Assets			195,500
Intangible Assets:			
Patents			16,000
Deferred Charges to Expense:			
Factory Supplies		$3,000	
Shipping Department Supplies		1,680	
Office Supplies		1,000	
Prepaid Insurance		1,200	
Total Deferred Charges to Expense			6,880
Total Assets			$346,390
LIABILITIES			
Current Liabilities:			
Accounts Payable		$45,000	
Wages Payable		1,630	
Interest Payable		1,400	
Provision for Federal Income Tax		4,600	
Total Current Liabilities			$ 52,630
Fixed Liabilities:			
First-Mortgage 5% Bonds Payable			80,000
Total Liabilities			$132,630
PROPRIETORSHIP			
Common Stock		$100,000	
Surplus		113,760	
Total Proprietorship			213,760
Total Liabilities and Proprietorship			$346,390

Balance Sheet of a Manufacturing Enterprise

The distinction between manufacturing costs and cost of goods manufactured is shown in the schedule on page 498. Manufacturing costs consist of materials used, $83,650, direct labor, $75,750, and manufacturing expenses, $60,600, a total of $220,000. Cost of goods manufactured takes into account the two goods in process inventories and amounts to $215,000.

The balance sheet of The Deane Manufacturing Company is shown on page 499. Three inventories, instead of one, are reported on this balance sheet; the fixed assets include Machinery and Equipment; an intangible asset, Patents, appears on the report; and the deferred charges include Factory Supplies. The liabilities include a current liability, Wages Payable, and a fixed liability, First-Mortgage 5% Bonds Payable.

After the financial reports have been prepared, the adjusting and closing entries are recorded in the general journal. The Adjustments columns of the work sheet are used as the basis for these entries. Since all manufacturing costs are to be summarized in an account called Manufacturing Summary, the adjustments for raw materials inventory and the goods in process inventory are posted to this account. The adjustments for the finished goods inventory are posted to the profit and loss account.

After the adjustments have been recorded, the closing entries are made. All manufacturing items are transferred to the manufacturing summary account. The balance of the manufacturing summary account is then a debit that represents the cost of the goods manufac-

tured. The balance is transferred to the profit and loss account, and all remaining income and expense items are closed into the same account. The balance of the profit and loss summary account then represents the profit or the loss for the period, and is transferred to Surplus. The manufacturing summary account of The Deane Manufacturing Company is shown on page 500.

VALUATION OF THE INVENTORIES OF A MANUFACTURING ENTERPRISE The valuation of the inventory of raw materials at the end of a fiscal period does not differ from the practice followed in trading concerns. Cost or market prices are available and are used. In the valuation of finished goods, market prices are not suitable because they represent selling prices. The inventory value of finished goods and of goods in process must be built up from raw materials by adding direct labor and overhead items. This computation involves the use of estimates based on information derived largely from the accounting records.

In estimating the cost of finished goods and goods in process, it has become customary to consider the cost as being composed of three elements: raw materials, direct labor, and overhead. The raw materials and the direct labor are embodied in the goods being produced and represent direct costs. All other costs, which are not directly identifiable with goods being produced and which apply to the factory as a whole, are called indirect costs and are reported under the heading "Manufacturing Expenses" on the cost of goods manufactured schedule. Included with manufacturing expenses are the cost of indirect labor and that of factory supplies used. Factory supplies may be considered indirect materials since they represent materials used to facilitate production within the factory. The total of the manufacturing expenses, including indirect materials and indirect labor, comprises the item overhead. Factory overhead is commonly expressed as a percentage of the direct labor cost. By referring to the figures on the cost of goods manufactured schedule on page 498, the following percentage of overhead to direct labor is obtained:

$$\text{Ratio of Overhead to Direct Labor Cost } \frac{\$60,600}{\$75,750} = 80\%$$

The valuation of the goods in process and the finished goods requires information regarding the cost of direct materials, the cost of direct labor, and the overhead rate. In estimating the value of finished goods at \$84,000 and that of goods in process at \$20,000, The Deane Manufacturing Company prepared the following summaries:

5 Howard Elder, C P A, finds real estate valued at $25 000 on the balance sheet of Ferson and Lee, Inc The account in the ledger shows that the land was purchased for $8 000 ten years ago and was held for six years before a building was erected at a cost of $17,000 Taxes and assessments during the ten years amounted to $2,500, of which amount $1,200 occurred prior to the erection of the building The estimated life of the building is twenty years with a salvage value of $1,000 What correcting entry or entries should be made?

PROBLEMS

1. A cost of goods manufactured schedule is shown below.

THE CAMDEN CORPORATION
SCHEDULE NO. 1 — COST OF GOODS MANUFACTURED
TO ACCOMPANY PROFIT AND LOSS STATEMENT
FOR YEAR ENDED DECEMBER 31, 1950

Goods in Process Inventory, January 1, 1950..			$60,000
Raw Materials:			
Inventory, January 1, 1950..............		$200,000	
Purchases.....		330,000	
Total Cost of Materials Available for Use...		$530,000	
Less Inventory, December 31, 1950 ...		215,000	
Cost of Materials Consumed.............		$315,000	
Direct Labor...		200,000	
Manufacturing Expenses:			
Indirect Labor....	$75,000		
Depreciation Expense	37,500		
Sundry Manufacturing Expense	57,350		
Total Manufacturing Expenses...........		169,850	
Total Manufacturing Costs.			684,850
Total Goods in Process During Period..... ..			$744,850
Less Goods in Process Inventory, December 31, 1950...			44,850
Cost of Goods Manufactured...............			$700,000

Instructions: (1) Prepare journal entries to summarize the raw materials inventory and the goods in process inventory in the manufacturing summary account.

(2) Prepare the journal entry to summarize the purchases, the direct labor, and the manufacturing expenses in the manufacturing summary account.

(3) Prepare the journal entry to close out the manufacturing summary account.

(4) Post the entries to the manufacturing summary account.

2. The work sheet for the Miller Manufacturing Company, without the Adjustments columns, for the year ended December 31, 1950, is given on page 506.

Instructions: (1) Based on the work sheet on page 506, prepare the following journal entries:

(a) To record inventory adjustments, depreciation, patent write off, factory supplies used, and bond interest and discount.

(b) To close the manufacturing accounts into the manufacturing summary account.
(c) To close the manufacturing summary account and the profit and loss accounts to the profit and loss summary account.
(d) To record federal income tax liability.
(e) To close the profit and loss summary account to Earned Surplus Unappropriated.
(f) To increase the bond sinking fund reserve.
(2) Post to the manufacturing summary and profit and loss summary accounts and rule the accounts.

(3) Prepare a profit and loss statement supported by a schedule of cost of goods manufactured.

3. The Grant Manufacturing Company was incorporated on December 28, 1949, and began operations on January 2, 1950. The trial balance on December 31, 1950, was as follows:

Cash	$ 92,000	
Machinery and Equipment	400,000	
Factory Supplies	12,000	
Common Stock		$ 400,000
Sales		700,000
Raw Materials Purchases	250,000	
Direct Labor	197,500	
Indirect Labor	28,500	
Rent of Factory Building	25,000	
Sundry Factory Expense	15,000	
Selling Expense (control)	60,000	
General Expense (control)	20,000	
	$1,100,000	$1,100,000

Data for adjustments are:

(1) Inventories (overhead rate is 50% of direct labor):
  (a) Finished goods: 1,800 units — material, $1.00; direct labor, $6.00.
  (b) Goods in process: 2,500 units — material, $0.80; direct labor, $4.80.
  (c) Raw Materials: Material X, 4,000 units at $1.00; Material Y, 12,000 units at $0.50.

(2) Estimated depreciation of:	
Machinery and equipment	10%
(3) Deferred charges to expense:	
Factory supplies inventory	$4,000
(4) Accrued payroll:	
Direct labor	2,500
Indirect labor	1,500

Federal income taxes are to be provided for at 40% of net income.

Instructions: (1) Prepare a work sheet with manufacturing schedule columns.

(2) Prepare a profit and loss statement with a supporting schedule of the cost of goods manufactured.

CHAPTER XXVIII

COST ACCOUNTING—JOB ORDER

COST ACCOUNTING AND GENERAL ACCOUNTING General accounting contains references to costs. For example, in the beginning chapters of this book accounts were assembled on the profit and loss statement to determine *cost of goods sold*. In the preceding chapter accounts were put together in a periodic schedule to determine *cost of goods manufactured*. When the life of the business enterprise was separated into periods of a year or a month, only costs applicable to each period were permitted on these statements.

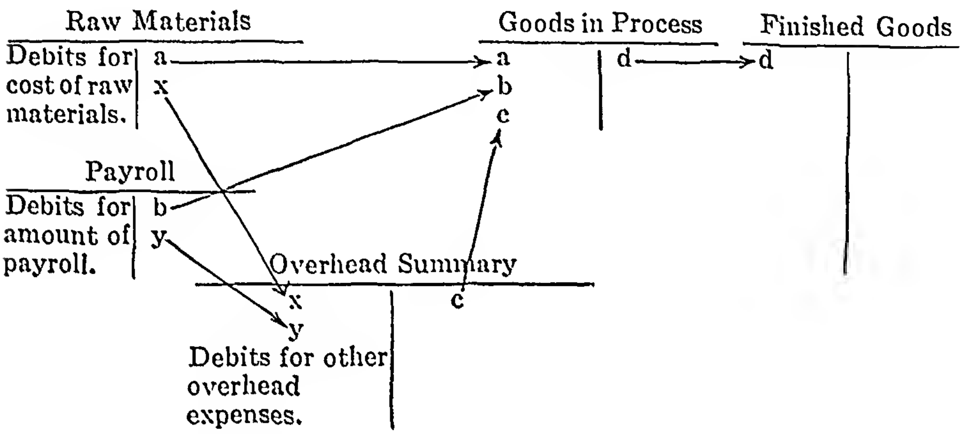
The chief difference between general accounting and cost accounting is one of emphasis. In this chapter the whole emphasis will be on the cost of jobs being manufactured.

A *job order* calls for the manufacture of a specified number of units of finished goods. A portion of the total manufacturing expenses must be assigned to that particular job in order to find the cost of the units. Records are provided to show the materials and labor costs on each job and to apportion to each job a part of the total manufacturing expenses. When the job is completed, the total cost is divided by the number of units finished in order to determine the cost of each unit of the finished goods. This procedure demands a careful analysis of the cost or expense elements entering into each job.

The elements of cost in a completed job are shown in the following tabulation:

expenditure connected with the operation of the factory eventually becomes a charge to an inventory account. As a result the three inventory accounts show not only the goods on hand at the end of the period, but also the volume of activity through the accounts during the period.

All expenditures incident to manufacturing move through the goods in process inventory and into the cost of the finished goods. The flow of these costs is shown below:



All manufacturing expenditures, as was suggested in the last chapter, may be classed under the three heads: Raw Materials, Payroll, and Overhead. The first two are divided into Direct and Indirect Materials and Direct and Indirect Labor. Indirect materials and indirect labor, illustrated by x and y above, become a part of Overhead. Goods in Process is made up of direct materials (a), direct labor (b), and overhead (c). When goods are finished, they move on to Finished Goods (d).

COST ACCOUNTING IN MANUFACTURING The need for estimating various costs in order to determine the value of goods in process and finished goods inventories was discussed in the previous chapter. Estimates were made of the materials, labor, and overhead charges found in the inventories at the close of the period. The calculation of such estimates may result in many errors. The incorporation of the three inventory accounts into the current accounting system, however, provides the accuracy of double entry and tends to eliminate errors.

The inventory accounts are affected not only by transactions that are completed between the manufacturing enterprise and other businesses, but also by transactions that are completed between different

departments or units of the enterprise The effects of these internal transactions are reflected in the accounts just as if the transactions were completed with other enterprises

The recognition of the accountability of internal transactions is a distinguishing characteristic of cost accounting Since the two bargaining parties who usually establish accountable values are absent, it becomes necessary to use cost as the basis of the accounting entry The principles and methods followed in setting up such costs constitute the subject matter of cost accounting in manufacturing A consideration of the treatment of internal transactions affecting each of the perpetual inventory accounts follows

RAW MATERIALS ACCOUNT Raw materials are recorded in an asset account which is treated in much the same way as the cash account that is it is debited for additions and credited for withdrawals When materials are purchased, they are charged at invoice price plus transportation cost to the raw materials account When they are withdrawn from the storeroom for use in the process of manufacture their value is credited to Raw Materials and charged to Goods in Process or to one of the manufacturing expense accounts Raw materials that will become a part of finished goods are charged to the goods in process account raw materials that will be used to assist in some process of manufacture are charged to a particular manufacturing expense account These charges result from internal transactions and necessitate the calculation of cost price as the basis for the accounting entries This price is ordinarily the actual price paid for the materials plus the transportation cost The following journal entry accounts for the use of materials

Goods in Process	1,250	
Factory Overhead	250	
Raw Materials		1 500

Since the raw materials account represents many kinds of units rather than one, it is set up as a controlling account with a subsidiary ledger This ledger is called the *stores ledger*, or *raw materials ledger*, it contains an account with each kind of material in the storeroom Postings are made currently to the raw materials accounts in the subsidiary ledger, and the balances of these accounts are compared at intervals with the actual amounts of the various kinds of materials on hand This comparison and the accompanying adjustments that

may be necessary eliminate, in most companies, an annual shutdown for the purpose of taking at one time complete physical inventories.

Entries are made in the subsidiary stores ledger from materials received reports and from material requisition slips by the *balance of stores clerk*. The materials received reports for the month are summarized and an entry is made debiting the controlling account Raw Materials. The material requisition slips are also summarized and the total is credited to Raw Materials.

The raw materials control account may be compared with the accounts receivable control account described in Chapter VIII. Posting to the subsidiary stores ledger is similar to posting to the customers' ledger, the postings being made from business papers rather than from journals. At the end of the month the balance of the controlling account Raw Materials should agree with the sum of the balances in the stores ledger.

PREDETERMINED FACTORY OVERHEAD RATE In order that the goods in process account will show all manufacturing costs, those costs not identifiable with particular production orders must be grouped and applied to Goods in Process as a percentage of one or more of the known items. In the previous chapter the factory overhead, consisting of indirect materials, indirect labor, and other manufacturing expenses, was ascertained and expressed as a percentage of the direct labor cost. This percentage was determined at the end of the accounting period by summarizing all indirect manufacturing expenses and expressing the total as a percentage of direct labor costs. In order that the cost of a job order may be known as soon as the job is completed, a *predetermined factory overhead rate* is used.

This rate must be based on estimated amounts of manufacturing expense and direct labor for the year ahead. For example, if it is estimated that the total manufacturing expenses for the year will be $80,000 and that the total direct labor cost will be $100,000, an overhead rate of 80% applied to the direct labor cost of the job orders of the year would absorb all of the manufacturing expenses of the year.

Since there is bound to be a variance between the estimated and the actual figures, the factory overhead account, which is debited for the actual figures and credited for the estimated figures, will have a balance. If this is a credit balance, overhead is said to be *overabsorbed;* if it is a debit balance, overhead is said to be *underabsorbed.* These two conditions are illustrated on the following page:

Overabsorbed Factory Overhead			
Ind Mat	2 000	Charged to Goods in Process	33 200
Ind Labor	4 000		
Fact. Supp	800		
Depr on Machy etc	12 000		
Total	32 400		

Overabsorbed $800

Underabsorbed Factory Overhead			
Ind Mat.	2 000	Charged to Goods in Process	32 000
Ind Labor	4 000		
Fact. Supp	800		
Depr on Machy etc	12 000		
Total	32 400		

Underabsorbed $400

The balances of the factory overhead account are carried forward from month to month until the end of the year If the balances fluctuate from debit to credit and are relatively small amounts there is evidence that the predetermined rate is satisfactory If a debit balance accumulates month after month until a considerable amount is involved it indicates that the rate is too low If the rate is too high, a credit balance will accumulate In either case the rate should be raised or lowered to prevent the accumulation of a balance

GOODS IN PROCESS ACCOUNT Raw Materials is credited and Goods in Process is debited when raw materials are withdrawn from the storeroom and put into production The goods in process account shows on its debit side the cost of all elements put into manufacturing and on its credit side, the cost of all elements leaving manufacturing as finished goods Charges for direct materials and direct labor which are costs identifiable with particular jobs in process as well as charges for overhead are made to Goods in Process.

Since the goods in process account represents many kinds of units rather than one it must be a controlling account for a subsidiary ledger This ledger is known as the *production order ledger* or *cost ledger* In the cost ledger an account with each factory production order is established and to it are charged all materials and labor costs identifiable with that order To the production order account is also charged a portion of the unidentifiable expenses that represent factory overhead The accounts in the subsidiary ledger are posted currently Each of these accounts may be closed and removed from the cost ledger when the order with which it correlates has been completed A summary of the completed production orders provides the information for the entry at the end of the month in which the goods in process account is credited and the finished goods account is debited

The relation of the controlling account Goods in Process to the cost ledger is shown in the following diagram:

Goods in Process

Balance	1,500		15,960
Materials	6,500		
Labor	5,000		
Overhead	4,000		
(Summaries posted at the end of the month.)		(Jobs Nos. 1, 2, 3 completed during month.)	

Cost Ledger

Job No. 1

Balance	1,500
Materials	1,000
Labor	1,200
Overhead	960
	4,660

Job No. 2

Materials	2,000
Labor	1,500
Overhead	1,200
	4,700

Job No. 3

Materials	3,000
Labor	2,000
Overhead	1,600
	6,600

Job No. 4

Materials	500
Labor	300
Overhead	240

A separate sheet for each job is provided in the cost ledger. A cost sheet providing for the current accumulation of cost elements entering into a production order, and for a summary at the time the production order has been completed, is shown on page 514 for Job No. 2, which is summarized in the preceding diagram.

The four materials requisitions charged to this job are also posted to the proper raw materials accounts in the stores ledger as credits. This procedure was described earlier in the chapter.

The time slips posted to the production order are summarized with all other time slips at the end of the month and became a credit to the payroll account. The payroll account is debited when the periodic payment of wages is made. The credit balance of the payroll account therefore represents the amount due workmen for services rendered. The payroll account differs from the raw materials account in that it is charged for the costs after the labor has been received and charged to production. Any unpaid balance is reported as a current liability on the balance sheet.

When Job No. 2 is completed, the materials costs and the labor costs are totaled and entered in the summary column at the right of the cost sheet. Overhead is added at the predetermined rate of 80% of the direct labor cost, and the total cost of the job is recorded. From this job order cost of $4,700 it is possible to obtain the unit cost of the Type C Containers, 94 cents each.

Job No 2   Date July 7, 1950

For 5,000 Type C Containers   to be completed on July 24, 1950

For Stock

Materials		Labor				Summary	
Req No	Amount	Time Slip No	Amount	Time Slip No	Amount	Items	Amount
1434	400 00	12202	83 60	Bt fwd	1,158 00		
1438	500 00	204	108 40	12234	45 20	Materials	2,000 00
1441	700 00	205	67 00	237	70 00	Labor	1,500 00
1464	400 00	210	129 00	242	61 60	Overhead	
		211	98 30	248	22 50	(80%)	1,200 00
	2,000 00	213	107 20	250	87 30		
		216	110 00	253	55 40	Total Cost	4,700 00
		222	77 60				
		224	217 40	Total	1,500 00		
		225	105 30				
		231	53 20			No of units finished	5,000
		Fwd	1,158 00			Cost per unit	94

Job Cost Sheet

At the time each job is completed, an entry is made in a special journal known as a *finished goods journal.* At the end of the accounting period the total of these entries is posted to the debit of Finished Goods and the credit of Goods in Process. The balance of the goods in process account then represents the total costs charged to uncompleted orders.

FINISHED GOODS ACCOUNT Finished Goods is debited for the cost of all goods transferred from the factory to the stockroom. It is credited for the cost of all goods shipped. When goods are sold, shipping orders are commonly prepared, and from these are formulated entries debiting Cost of Sales and crediting Finished Goods. At the same time Accounts Receivable is debited and Sales is credited for the selling price. Each sale thus requires two entries: in the first the finished goods are recorded at the cost price; in the second, at the selling price.

Like the two previous inventory accounts, the finished goods account is a controlling account. The subsidiary ledger that it controls is known as the *stock ledger* or *finished goods ledger*. In the stock ledger an account is kept with each kind of manufactured commodity. On the debit side of each account in the stock ledger there are columns for the number of units of the commodity manufactured, the cost of a unit, and the cost of the completed order. On the credit side there are columns for the number of units shipped, the cost of a unit, and the total cost of the units shipped.

FINISHED GOODS

(a) 10,000	(b) 6,050
(Summary of jobs completed, posted at end of month.)	(Summary of shipping orders, posted at end of month.)

STOCK LEDGER

COMMODITY A

Job Order Number	Number of Units Manufactured	Cost per Unit	Cost of Job Order	Shipping Order Number	Number of Units Shipped	Cost per Unit	Cost of Shipment
515	1,000	$5	$5,000	408	600	$5	$3,000

COMMODITY B

Job Order Number	Number of Units Manufactured	Cost per Unit	Cost of Job Order	Shipping Order Number	Number of Units Shipped	Cost per Unit	Cost of Shipment
212	100	$12	$1,200	329	50	$12	$ 600
648	200	11	2,200	463	150 { 50 @	12	
					100 @	11	1,700
				481	50	11	550

COMMODITY C

Job Order Number	Number of Units Manufactured	Cost per Unit	Cost of Job Order	Shipping Order Number	Number of Units Shipped	Cost per Unit	Cost of Shipment
888	160	$10	$1,600	479	20	$10	$200

Often the debit side of a stock ledger account will show that the same commodity was produced on several occasions at different costs. In this case the unit cost that is listed first on the debit side is applied to the first shipment of the commodity. When the number of units shipped exceeds the number manufactured at the first unit cost, the second unit cost is used until that lot of the commodity has been exhausted. This pricing procedure is perhaps the one most widely used in crediting accounts in the stock ledger, it is known as the *first-in, first-out* method. The same method is also used in crediting accounts in the raw materials ledger. The application of this method in connection with finished goods is illustrated by Commodity B in the diagram on page 515. This diagram shows the relation of the controlling account Finished Goods to the stock ledger.

THE FACTORY LEDGER In some cases it is convenient to have all accounts with factory inventories and factory operations set up in a ledger or ledgers entirely separate from the general ledger. This is particularly true when the factory is located at some distance from the main office. The details of factory operations are of interest principally to factory executives and need to be easily available.

An account called *Factory Ledger* is set up in the general ledger, and all transactions having to do with the factory are summarized in it. Purchases of raw materials, payroll payments, current factory expenses and monthly charges such as depreciation, insurance, and taxes on the factory are recorded as debits to this account. The corresponding credits are made to Vouchers Payable, Reserve for Depreciation, Prepaid Insurance, and Taxes Payable. Goods shipped from the factory on orders from the main office are recorded at cost as credits to this account and debits to Cost of Sales. The debit balance of the factory ledger account represents the net investment in factory inventories.

Illustrative entries in both the general books and the factory books are as follows:

General			Factory		
(a) For a purchase of raw materials					
Factory Ledger	51,000		Raw Materials	51,000	
Vouchers Pay.		51,000	General Ledger		51,000
(b) For payroll payments					
Factory Ledger	59,500		Payroll	59,500	
Vouchers Pay.		59,500	General Ledger		59,500

General			Factory		
		(c) For current factory expenses			
Factory Ledger....	12,000		Factory Overhead..	12,000	
Vouchers Pay....		12,000	General Ledger..		12,000
		(d) For monthly charges			
Factory Ledger....	30,000		Depreciation......	30,000	
Res. for Depr. on Plant.........		30,000	General Ledger.		30,000
		(e) For goods shipped from the factory			
Cost of Sales......	124,000		General Ledger....	124,000	
Factory Ledger..		124,000	Finished Goods .		124,000

The reciprocal nature of the entries is illustrated in each of the above entries. Whenever Factory Ledger is debited on the general books, General Ledger is credited on the factory books, and vice versa. All factory transactions are recorded in a single account in the general ledger.

The use of reciprocal accounts was illustrated in Chapter XXVI on branch accounting. Separate accounts were set up at each branch: and an account entitled Home Office Ledger was included, showing the equity of the main office in the branch. In this chapter the factory bears a similar relation to the main office; and again reciprocal accounts, General Ledger and Factory Ledger, are used.

ILLUSTRATION OF COST ACCOUNTING To illustrate the procedures already described, the following facts may be assumed: The Logan Manufacturing Co. operates a factory located apart from its general and sales offices. In the general ledger a single account called Factory Ledger controls all the activities of the factory. The trial balance of the factory ledger, as of September 30, 1949, was as follows:

THE LOGAN MANUFACTURING CO.

Trial Balance of Factory Ledger, September 30, 1949

		Raw Materials..............	15,000	
		Goods in Process (Job No. 1001)........	10,000	
		Fin. Gds. (Commodity X: 2,000 units @ $10)..	20,000	
		Payroll..........................		1,600
		Overhead..........................		400
		General Ledger..........................		43,000
			45,000	45,000

The following is a summary of the data for October that affected accounts in the factory ledger

a Raw materials purchased by the general office for the factory, $31,000
b Factory pay checks received from the general office, $59 500
c Expenses entered in the voucher register that were chargeable to the factory, $12,000
d Monthly fixed charges applicable to the factory, $16,000
e Requisitioned materials chargeable to orders, $30,000, requisitioned materials chargeable as indirect materials, $3,000
f Factory labor, $60 000 — chargeable to orders, $50,000, to indirect labor, $4 000 to superintendence, $6 000
g Factory overhead apportioned to jobs at the predetermined rate, $40,000
h Completed jobs, $110 000
i Shipping orders received from the general office, $106,000

These data were recorded in the factory journal by means of the following entries The explanations of these entries give complete details

(a)

Raw Materials		31,000	
General Ledger			31,000
To charge the raw materials account with the materials purchased by the general office during October (Invoice price, $28 000, freight cost, $3,000)			

(b)

Payroll		59,500	
General Ledger			59,500
To charge the factory payroll account with the payroll checks received from the general office			

(c)

Overhead		12,000	
General Ledger			12,000
To credit the general office for the following expense items entered in its voucher register			
Heat, Light, and Power	4,000		
Maintenance and Repairs	3,000		
Sundry Factory Expense	5,000		

(d)

Overhead		16,000	
General Ledger			16,000
To credit the general office for the following monthly fixed charges applicable to the factory			
Taxes	3 000		
Depr of Machinery & Equip	8 000		
Depreciation of Building	4,000		
Insurance	1,000		

(e)

Goods in Process (see detail below)	30,000	
Overhead	3,000	
Raw Materials		33,000

To charge the goods in process account with the total cost of raw materials requisitioned for use on particular jobs, and the overhead account for the cost of raw materials requisitioned for general use in the factory. The cost ledger shows direct materials charged to the following jobs:

No. 1001	$ 6,000	
No. 1002	13,000	
No. 1003	11,000	$30,000

(f)

Goods in Process (see detail below)	50,000	
Overhead	10,000	
Payroll		60,000

To charge the goods in process account for the direct labor cost, and the proper manufacturing expense account for the indirect labor cost. The cost ledger shows direct labor charged to:

No. 1001	$30,000	
No. 1002	15,000	
No. 1003	5,000	$50,000

(g)

Goods in Process (see detail below)	40,000	
Overhead		40,000

To charge factory overhead to the goods in process account at the predetermined rate (80% of the direct labor cost). The cost ledger shows overhead charged to the following jobs:

No. 1001 (80% of $30,000)	$24,000
No. 1002 (80% of $15,000)	12,000
No. 1003 (80% of $5,000)	4,000
	$40,000

(h)

Finished Goods (see detail below)	110,000	
Goods in Process		110,000

To credit the goods in process account with the cost of all goods finished and placed in the stockroom. The stock ledger shows that the following jobs were completed and received into stock during the month:

No. 1001 Commodity Y — 10,000 units at $7	$ 70,000
No. 1002 Commodity Z — 5,000 units at $8	40,000
	$110,000

(i)

General Ledger		106,000	
Finished Goods			106,000
To charge the general office for the cost of all finished goods shipped. The stock ledger shows that the following goods were shipped during the month:			
Commodity X — 1,000 units at $10	$ 10,000		
Commodity Y — 8,000 units at $ 7	56,000		
Commodity Z — 5,000 units at $ 8	40,000		
	$106,000		

The posting of items to accounts in the factory ledger and to accounts in the subsidiary cost and stock ledgers is indicated by a check mark (√) in the folio column. It should be noted that an item posted to a controlling account is supported by detail items posted to accounts in the subsidiary ledger. This parallel posting is similar to that explained for accounts receivable and accounts payable.

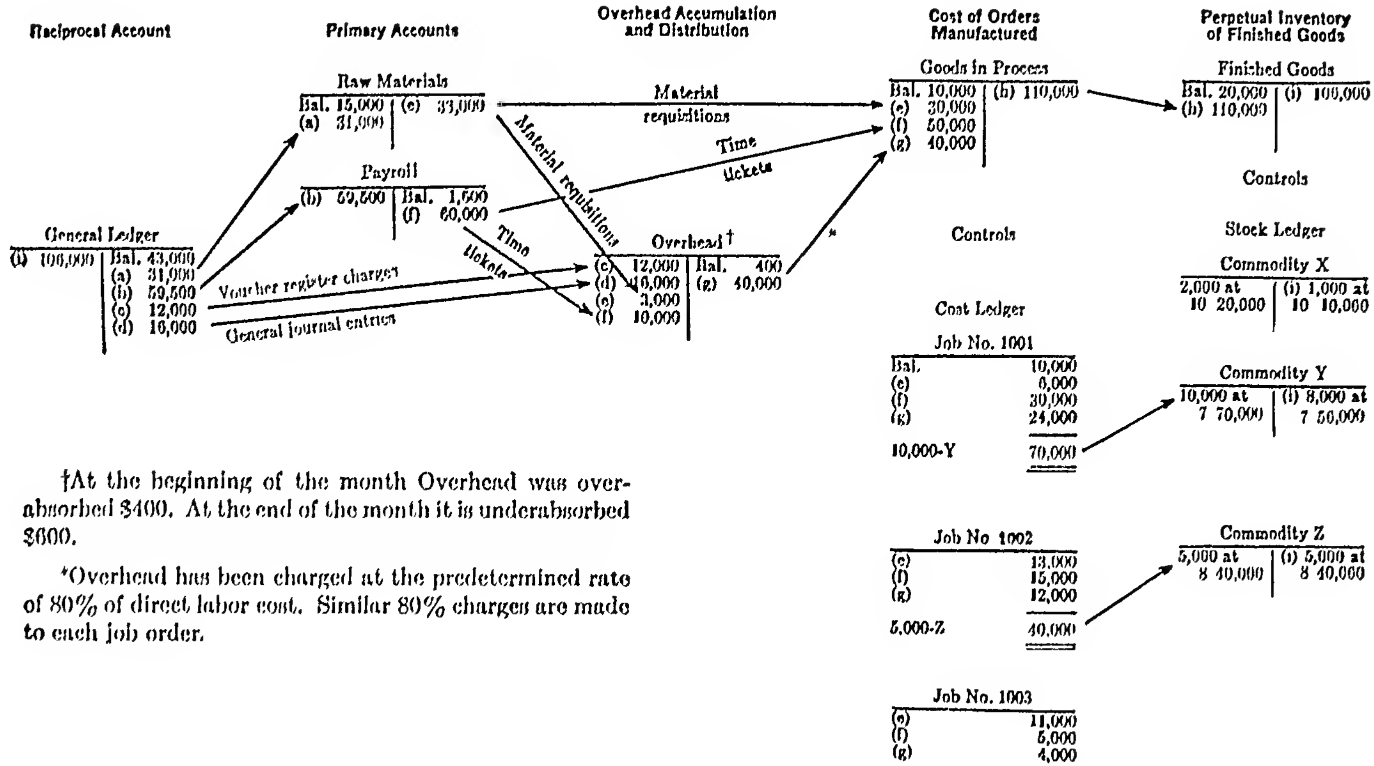
After the journal entries were posted to the accounts in the factory ledger, a trial balance was taken. This trial balance, as of October 31, 1949, was as follows

THE LOGAN MANUFACTURING CO.
TRIAL BALANCE OF FACTORY LEDGER
OCTOBER 31, 1949

	Raw Materials	13,000	
	Goods in Process	20,000	
	Finished Goods	24,000	
	Payroll		2,100
	Overhead	600	
	General Ledger		55,500
		57,600	57,600

In the trial balance of the general ledger the factory ledger account had a debit balance of $55,500, which corresponded with the credit balance of the general ledger account in the factory ledger. When the balance sheet and the profit and loss statement were prepared in the general office, the items on the two trial balances were combined, the balances of the two reciprocal accounts being omitted. In other words, the statements contained the details shown in the factory ledger accounts.

The flow of costs through factory ledger accounts, based on the foregoing transactions, is illustrated by the chart on page 521.



†At the beginning of the month Overhead was overabsorbed $400. At the end of the month it is underabsorbed $600.

*Overhead has been charged at the predetermined rate of 80% of direct labor cost. Similar 80% charges are made to each job order.

Flow of Costs Through Factory Ledger Accounts, Showing Subsidiary Cost Ledger and Stock Ledger

The chart shows the directness with which the two elements raw materials and direct labor enter into the cost of goods in process; it also indicates the indirect way in which the element factory overhead becomes a part of the cost of goods in process. Raw materials amounting to $30,000 and direct labor amounting to $50,000 have been charged directly to Goods in Process. The detail of each of these charges is shown in the cost ledger, controlled by the goods in process account. The number of jobs ordinarily controlled by the goods in process account is, however, many times the number used here

Overhead has been charged to Goods in Process at 80 per cent of the total direct labor cost, and to each job account in the subsidiary ledger at the same percentage of the direct labor cost of that job. The total charge to Goods in Process for overhead is $1,000 less than the actual overhead; hence. for October, there was underabsorbed overhead of $1,000 In September the same rate had been used, but the charge to Goods in Process more than equaled the actual overhead; hence there was overabsorbed overhead of $400. The debit balance of the factory overhead account at the end of October was therefore $600 The estimated rate, while not entirely accurate, was sufficiently so for the purpose of finding the cost of separate jobs and also the value of the two inventories of goods in process and finished goods. All manufacturing expenses except the small balance in the factory overhead account have passed through the goods in process account. A balance in the factory overhead account is in reality a deferred charge or a deferred credit to the manufacturing activities of succeeding periods and is carried forward from month to month. Any balance at the end of the year is merged with cost of sales on the profit and loss statement.

The entries recording the internal transactions in the accounts. as shown on the chart and in the three subsidiary ledgers, provide a complete record of manufacturing costs. By means of successive debit and credit entries, costs have progressed from the raw materials stage to the finished goods state. The cost of goods manufactured appears as a credit to Goods in Process and a debit to Finished Goods. The cost of goods shipped appears as a credit to Finished Goods and a debit to General Ledger.

When goods are shipped to customers, two entries are required in the general ledger: (a) one crediting the factory at cost for the goods shipped, and (b) another charging the customers at selling price for the goods shipped. To illustrate: In the case of The Logan Manu-

facturing Co., the selling price of the goods shipped to customers on orders from the general office was $130,000. The following entries were made in the journal of the general office.

(a)

Cost of Sales	106,000	
Factory Ledger		106,000
To credit the factory for the cost of goods shipped to customers.		

(b)

Accounts Receivable	130,000	
Sales		130,000
To record the selling price of goods shipped to customers from the factory.		

It will be noted that the entry charging Cost of Sales and crediting Factory Ledger is the reciprocal of the last entry recorded in the factory ledger. The cost of sales was determined directly, that is, without taking physical inventories.

The accounting result of recording the internal transactions having to do with manufacturing is to show directly the cost of goods sold, adjusted by the amount of overabsorbed or underabsorbed overhead, and to leave in the raw materials, goods in process, and finished goods accounts the amounts of the inventories at the end of the accounting period. Physical inventories serve only to check the accuracy of the balances in the raw materials, goods in process, and finished goods accounts. This condition is to be contrasted with that in general accounting, where the amount of the inventory is unknown until a physical count is made. There is, in general accounting, no book record that can be used in checking the accuracy of the physical inventory.

The use of perpetual inventory accounts for raw materials, goods in process, and finished goods distinguishes cost accounting from general accounting. The accounts with raw materials, goods in process, and finished goods, and the accounts in the subsidiary ledgers that are controlled by these three accounts, provide information that proves extremely helpful in controlling the activities of an industrial enterprise.

The termination of the flow of costs in a single account entitled Cost of Sales facilitates the preparation of a profit and loss statement at frequent intervals, perhaps each month. The simplicity of such a statement is apparent from the illustration on page 524.

THE LOGAN MANUFACTURING CO
PROFIT AND LOSS STATEMENT
FOR MONTH ENDED OCTOBER 31, 1949

Sales (net)		130 000
Cost of Sales		106 000
Gross Profit on Sales		24 000
Less Selling and General Expenses		20 000
Net Profit from Operations		4 000

The statement can be prepared by direct reference to the sales, the cost of sales, and the expense accounts It is not necessary to take physical inventories or to compute the cost of goods sold The profit and loss statement can thus be prepared accurately, rapidly, and with a minimum of computation and detail

When the accounts are closed at the end of the year, the difference between actual overhead and the estimated overhead (the balance of the factory overhead account) is closed into the cost of sales account. This practice avoids showing underabsorbed or overabsorbed overhead on the annual balance sheet

QUESTIONS

1 How does the cost section of an accounting department identify raw materials costs and labor costs with a particular order?

2 The Kellogg Mfg Co purchases 1,000 units of A at $1 and later purchases 500 units at $1 20 When the balance on hand is 700 units a materials requisition is made out for 400 units chargeable to Job Order No 57 *What amount is charged to Goods in Process for materials?*

3 Is the posting to the cost ledger made from the analysis of the payroll and the summary of the material requisition slips, or directly from the time tickets and the requisition slips? Why?

4 The goods in process account has a debit balance of $2,732 The accounts with the two jobs that are uncompleted have charges of $344 and $552 for materials and charges of $436 and $584 for direct labor What is the rate of overhead?

5 (a) State the types of information that are shown on a cost sheet. (b) Explain how this information is obtained

6. Name three controlling accounts found in cost accounting and the subsidiary ledgers controlled by each. Give the sources of posting for each of these accounts and its subsidiary ledger.

7. Of the three new subsidiary ledgers, which is the most significant from the point of view of cost accounting? Explain.

8. "The finished goods journal records the transactions completed between the factory and the stockroom." (a) What kinds of transactions may occur within an enterprise? (b) How is the "price" in such transactions established?

9. The factory ledger of T. L. Nelson contains the following account:

Goods in Process

Materials	12,000	Finished Goods	33,000
Labor	15,000		
Overhead	10,000		

If the materials charged to the uncompleted job amount to $1,500, what are the labor and overhead charges?

10. (a) Explain the use of the cost ledger. (b) How are indirect costs shown in the cost ledger? (c) How is this ledger related to manufacturing operations?

PROBLEMS

1. The transactions completed by the Ellis Manufacturing Company during the month of June are summarized below:

(a) Raw materials purchased	$110,000
(b) Materials requisitioned for production orders	74,000
(c) Materials requisitioned for general factory use	14,000
(d) Labor on production orders	80,000
(e) Indirect labor	28,000
(f) Repairs and maintenance	27,000
(g) Building rental	9,000
(h) Products finished and transferred to stock	180,000
(i) Goods sold on account — cost	110,000
(j) Vouchers payable for payroll	104,000

Instructions: (1) Set up "T" accounts for the factory ledger in such a manner that the flow of costs will be shown, and record directly in these accounts the data given above. The factory overhead rate is 100% of the direct labor cost.

(2) Take a trial balance of the factory ledger as of June 30.

2 On June 1 of the current year the following balances appeared in the accounts in the Oliver Manufacturing Company's factory ledger and subsidiary ledgers

Raw Materials	$ 6,000
Goods in Process — Job No 601	3,000
Finished Goods — Commodity N, 1 000 units	10,000
Factory Payroll (credit balance)	1,000
Factory Overhead (credit balance)	500
General Ledger	17,500

Raw materials of $12,000 were purchased during June Raw materials were requisitioned from the stores clerk as follows

Job No 601	$ 2,000
Job No 602	4,000
For general factory use	1,500

Time tickets for the month were chargeable as follows

Job No 601 — direct labor	$ 6,000
Job No 602 — direct labor	5,000
Indirect labor	1,600

Factory pay checks were received from the general office, $10,000 Various factory maintenance charges for heat, light, power, etc., were also paid by the general office, $1,400 Depreciation, taxes, and other fixed charges totaling $1,700 were charged by the general office to factory operations A 50% overhead rate was applied to direct labor cost.

All job orders were completed during the month Job Order No 601 produced 1,000 units of Commodity O, Job Order No 602 produced 1,000 units of Commodity P

Shipments during the month were made as follows

850 units of Commodity N
500 units of Commodity O
400 units of Commodity P

3. The Mercury Manufacturing Corporation prepared financial statements at the end of each month but closed its accounts on December 31. On November 30, 1950, the accounts in the general ledger and in the factory ledger showed the following balances:

GENERAL LEDGER

Cash	$ 29,000	
Factory Ledger	17,000	
Common Stock		$ 25,000
Surplus		15,000
Sales		88,000
Cost of Goods Sold	71,000	
Operating Expenses	11,000	
	$128,000	$128,000

FACTORY LEDGER

Raw Materials	$ 6,000	
Goods in Process	4,500	
Finished Goods	6,200	
Factory Overhead	800	
Factory Payroll		$ 500
General Ledger		17,000
	$ 17,500	$ 17,500

Operations for the month of December were as follows:

(a) All sales were for cash:	
Selling price	$ 12,000
Cost of goods sold	8,000
(b) Cash disbursements:	
Factory payroll	7,000
Factory overhead expenses	2,500
Operating expenses	1,000
Total	$ 10,500
(c) Withdrawals of raw materials:	
Chargeable to jobs	$ 4,000
(d) Factory labor:	
Chargeable to jobs	6,000
Chargeable to factory overhead	1,900
(e) Cost of goods completed	12,000

(f) Overhead rate applied to jobs, 70% of direct labor cost.

Instructions: (1) Set up accounts for a general ledger and a factory ledger, recording the balances as of December 1, 1950. Make provision for a profit and loss summary account to follow the surplus account.

(2) Record the transactions and the adjusting data directly in the accounts (no journal entries required). Compare account balances to the trial balances on the following page:

TRIAL BALANCES, DECEMBER 31, 1950

General Ledger			Factory Ledger		
Cash	30,500		Raw Materials	2,000	
Factory Ledger	18,500		Goods in Process	6,700	
Common Stock		25,000	Finished Goods	10,200	
Surplus		15,000	Factory Overhead	1,000	
Sales		100,000	Factory Payroll		1,400
Cost of Goods Sold	79,000		General Ledger		18,500
Operating Expenses	12,000				
	140,000	140,000		19,900	19 900

(3) Prepare a profit and loss statement and a balance sheet for the year ended December 31, 1950 Underabsorbed overhead is to be added to Cost of Goods Sold

(4) Record closing entries directly in the accounts (no journal entries required) In the factory ledger, close underabsorbed overhead to the general ledger account In the general ledger, charge Cost of Goods Sold with the underabsorbed overhead Balance and rule the accounts Compare account balances to the following trial balances

POST-CLOSING TRIAL BALANCES, DECEMBER 31, 1950

General Ledger			Factory Ledger		
Cash	30 500		Raw Materials	2 000	
Factory Ledger	17,500		Goods in Process	6,700	
Common Stock		25 000	Finished Goods	10,200	
Surplus		23,000	Factory Payroll		1,400
			General Ledger		17,500
	48,000	48 000		18,900	18,900

CHAPTER XXIX

PROCESS COSTS IN MANUFACTURING AND SELLING

PROCESS COST ACCOUNTING In the preceding chapter, where the job order cost system was described, manufacturing cost elements were identified with the product directly. Material, labor, and overhead were applied directly to the units comprising the job order. In this chapter the same cost elements will be identified first with a manufacturing or selling process and only secondarily with the product or the service. This indirect method of finding the cost of products and services is known as *process cost accounting.*

In many industries it is not possible to identify the raw materials with specific job orders as they are converted into finished goods. In the manufacture of ink, paint, soap, paper, and other similar products, the raw materials processed form a homogeneous mass, which cannot be broken up into job orders. When an enterprise renders a service, the elements of cost entering into the service are alike applicable to the whole volume of service rendered. In such cases the cost elements must first be identified with processes and then with the product of those processes. For example, the cost of a gallon of paint is the cost of the process divided by the number of gallons turned out by the process.

The items charged to the process account are similar to the items charged to the goods in process account under the job order system. They include the elements of cost: materials, labor, and overhead. A process account is illustrated below:

PROCESS A

Materials..................	4,000	Units completed — 10,000....	9,000
Labor......................	3,000		
Overhead..................	2,000	Cost per unit $\frac{\$9,000}{10,000} = 90¢$	
	9,000		9,000

The finished goods of Process A may become the raw materials of Process B.

As manufacturing becomes more and more standardized and the units of output, day after day, tend to be alike, the significance of job order costs disappears and greater utility is found in knowing the costs of processes from day to day. Such processes characterize not only

manufacturing operations but selling operations as well Retailing and wholesaling consist of a series of processes, which taken together produce sales The cost of almost any activity may be divided by the units of output and a process cost per unit may be obtained Process cost accounting is therefore more universally applicable than job order cost accounting It is the purpose of this chapter to describe process cost accounting in manufacturing and in other business fields as well

JOB ORDER AND PROCESS COSTS DISTINGUISHED In job order cost accounting the three elements of cost — materials labor, and overhead — are charged directly to job orders. All production consists of job orders and all costs ultimately are identified with some job As illustrated above in process cost accounting the elements of cost are charged to processes and the cost of goods produced in a given period is obtained by dividing the cost of the process by the number of units produced Since all goods produced by a process are like units, it is no longer useful to classify production into job orders Process costs give average costs

If there were but one process in a factory, the cost accounting would be very simple The manufacturing cost elements would be charged to the single process account and the process unit cost would be determined by dividing the total by the number of units produced In the process account illustrated on page 529 the cost of the process $9 000 is divided by the output 10 000 units to obtain a cost per unit of 90 cents

Ordinarily there are several processes in a factory It therefore becomes necessary to account for each process separately, just as it was necessary in the preceding chapter to account for each job order separately If there were as many processes as there were job orders it would be advisable to set up a separate process ledger similar to the cost ledger But since the number of processes is more limited process cost accounts commonly appear in the factory ledger, and there is no subsidiary process ledger

Process costs result in averaging the costs of given operations as they apply to goods manufactured Job order costs differentiate the costs applicable to goods manufactured Job order systems involve more detail and give more specific information than process systems. Since process costs provide only one cost figure for each cost period they require much less detailed work.

In a factory where a number of processes exist, it is customary to have additional departments that do not process the raw materials

directly but assist the processing departments. For example, if processing uses power machinery, the power to run the machinery may be furnished by a power department. If the product involves chemical engineering, the formulas used may be controlled by a chemical engineering department. Such departments are known as service departments.

SERVICE DEPARTMENTS AND PROCESS COSTS Where service departments exist, the factory is considered not as a unit but as a collection of departments. The service departments facilitate the processing departments in producing finished goods. They include such departments as the factory office, the building department, the power plant, and the repair shop.

The existence of the departments in a factory gives rise to additional internal transactions. The services rendered by a service department result in internal transactions between that department and the processes that receive the benefit of the services. In these internal transactions, as in those discussed in the previous chapter, the basis of the amount involved in the transaction is the cost of the service rendered. For example, if the total charges to the power department for the period of a month are $3,000 and this department provides power service to two processes, the debits to the two processes will be based on the $3,000, the cost of the service rendered. If this department rendered 150,000 kilowatt-hours of service, then the charge would be made at the rate of two cents a kilowatt-hour. If Process A used 100,000 kw. hours and Process B used 50,000 kw. hours, the service department account and its charges to A and B would be as follows:

Power Department

Fuel	1,000	To Process A	2,000
Wages	600	To Process B	1,000
Depreciation	400		
Maintenance	400		
Taxes	400		
Insurance	200		
	3,000		3,000

Process A

Power	2,000	

Process B

Power	1,000	

In a departmentalized factory, the service department costs are charged periodically to the process accounts The period usually chosen is a month. At the end of the month the process accounts will include the total manufacturing expenses for the month. Each account will have been charged on some reasonable basis for all its costs, both direct and indirect. The account for Process B is shown below:

PROCESS B

10,000 units at 40¢ from Process A		4,000	10,000 units at $1 to Process C	10,000
Labor	1,200			
Overhead	2,300			
Service Dept. 1	1,500			
Service Dept. 2 (Power)	1,000	6,000		
		10,000		10,000

On the left-hand side of this account are shown all the elements entering into Process B, including the material cost (the amount transferred from Process A), the labor, the overhead, and the service department costs chargeable to Process B The total cost of processing in Process B consists of

Labor	$1,200	
Overhead	2,300	
Service Dept. 1	1,500	
Service Dept. 2	1,000	
Total processing cost		$6,000

This amount, $6,000, is called the *processing cost.* Since 10,000 units have been processed, the cost of a completed unit is $1, of which amount 40 cents represents the material cost and 60 cents the processing cost. *This cost of $1 per unit, the finished goods cost in Process B,* becomes the material cost in Process C.

JOINT PRODUCTS The result of a process may be two or more products instead of one, as assumed in previous illustrations. In such a case it becomes necessary to apportion among the resulting products the processing costs of the period. To accomplish this apportionment, some basis must be chosen. Two factors that commonly enter into this basis are (a) weight and (b) market price. For example, meats are bought by packers "on the hoof" at a price per pound. The finished goods, the various cuts of meat sold by the packers, have widely diversified prices. It is assumed that

these prices are merged in the price paid "on the hoof." Based on such assumption, the products resulting from the process share in the total processing costs according to weight and price combined. The output in quantity of pounds is weighted by the market price of the finished goods.

To illustrate, assume that Process A results in two products, X and Y. There are 4,000 units of X and 1,000 units of Y. The market price per unit of X is one half that of Y. If the total cost of the process was $1,200, the amounts assignable to X and Y would be determined as follows:

JOINT PRODUCT COST ALLOCATION

	Actual Units		Weighted Units
Product X	4,000	× ½ =	2,000
Product Y	1,000	× 1 =	1,000
Total	5,000		3,000

Cost per weighted unit = $1,200 ÷ 3,000, or 40 cents

Total cost for X, 2,000 × $.40 =	$ 800
Total cost for Y, 1,000 × .40 =	400
Total cost =	$1,200

The unit cost of Product X would be obtained by dividing $800 by 4,000 units, or 20 cents per unit; and of product Y by dividing $400 by 1,000 units, or 40 cents per unit.

BY-PRODUCTS If one of the products resulting from a process has little value in relation to the other product, it is known as a *by-product*. In this case, it is assumed that the cost of processing belongs to the main product. Whatever return there may be from the sale of the by-product is a deduction from the total cost of the main product. The amount credited to the process account for the by-product should be the *net* return from its sale.

For example, if Process D resulted in two products, X and M, and the net return from M was only $50, that amount could be credited to the cost of producing Product X. The account for Process D is shown below.

PROCESS D

Raw Materials	600	Net Return from Product M	50
Labor	100	Cost of Product X	1,150
Overhead	300		
Service Department	200		
	1,200		1,200

In the production of flour, there are produced in the milling process various kinds of feed. These are considered by-products, since they have such a small market value in comparison with the main product, flour.

The output of a given process might include two or more main products in addition to the by-products In this case the division of the remaining balance among the main products is accomplished in the same way as described above under "Joint Products."

ILLUSTRATION OF PROCESS COST ACCOUNTING The features of process cost accounting described and explained individually on the previous pages are now combined in a single illustration This illustration includes the relation of service department accounts to process accounts and the determination of unit process costs The accounts affected are arranged in a "flow chart" illustration similar to that used in Chapter XXVIII. This illustration is found on page 537 and shows the movement of costs from left to right.

The AB Processing Company produces two commodities, A and B. When raw materials pass through Process 1, Products A and M result; when Product M is further processed in Process 2, Product B results. Product M represents an intermediate state in the production of Product B

In addition to the two processing departments, there are three service departments in the factory. These are utilized as follows by the processing departments.

	Process 1	Process 2
Service Dept. X	75%	25%
Service Dept Y	40%	60%
Service Dept Z	50%	50%

The trial balance of the factory ledger as of March 31, 1949, is as follows:

AB PROCESSING COMPANY
TRIAL BALANCE OF FACTORY LEDGER
MARCH 31, 1949

		Raw Materials (500 units at $2 80)	1,400	
		Product A (250 units at $2)	500	
		Product B (100 units at $10)	1,000	
		Supplies	200	
		Payroll		450
		General Ledger		2,650
			3,100	3,100

The following is a summary of the operations during April:

a. Raw materials purchased by the general office for the factory: 1,700 units at \$3, \$5,100.

b. Raw materials requisitioned for use in Process 1: 2,000 units.

c. Supplies purchased by the general office for the factory: \$600.

d. Factory charges for labor: \$5,900.

Process 1,	\$2,900	Service Dept. X,	\$400
Process 2,	1,600	Service Dept. Y,	700
		Service Dept. Z,	300

e. Depreciation, taxes, and repairs charged to the factory by the general office, \$3,500, were apportioned as follows:

Process 1,	\$ 980	Service Dept. X,	\$950
Process 2,	470	Service Dept. Y,	300
		Service Dept. Z,	800

f. Supplies requisitioned for use in the factory, \$400, were distributed as follows:

Process 1,	\$ 170	Service Dept. X,	\$ 50
Process 2,	80	Service Dept. Z,	100

g. Factory pay checks received from the general office: \$5,800.

h. Service department overhead accounts were distributed to the process accounts on the basis of utilization by the processing departments.

i. The 2,000 units of raw material placed in Process 1 were completed, producing 500 units of Product A (a by-product) and 1,500 units of Product M, which entered Process 2.

j. Product M, after going through Process 2, became 1,500 units of Product B.

k. The general office was charged with the goods shipped during the period:

Product A, 500 units (by-product)
Product B, 900 units

The journal entries to record this information were as follows:

(a)

Raw Materials	5,100	
General Ledger		5,100
To charge the raw materials account with the materials purchased by the general office during April (1,700 units at \$3).		

(b)

Process 1	5,900	
Raw Materials		5,900
To charge Process 1 with 2,000 units of raw materials put into production.		

500 units at \$2.80	\$1,400
1,500 units at \$3.00	4,500
	\$5,900

(c)

Supplies	600	
General Ledger		600
To record the supplies purchased for the factory by the general office		

(d)

Process 1	2,900	
Process 2	1,600	
Service Dept X	400	
Service Dept Y	700	
Service Dept. Z	300	
Payroll		5 900
To charge the two processes and the three service departments for labor costs		

(e)

Process 1	980	
Process 2	470	
Service Dept X	950	
Service Dept Y	300	
Service Dept Z	800	
General Ledger		3,500
To charge the two processes and the three service departments with depreciation, taxes and repairs		

(f)

Process 1	170	
Process 2	80	
Service Dept X	50	
Service Dept Z	100	
Supplies		400
To record the supplies requisitioned for use in the factory during April		

(g)

Payroll	5,800	
General Ledger		5 800
To credit the general office for pay checks received		

(h)

Process 1	2,050	
Process 2	1,550	
Service Dept X		1,400
Service Dept Y		1,000
Service Dept Z		1,200
To distribute the balances of the service department accounts to the process accounts on the basis of utilization by the processing departments		

	Process 1	Process 2
Service Dept X	1,050	350
Service Dept Y	400	600
Service Dept Z	600	600
	2,050	1,550

Reciprocal Account

General Ledger

Debit		Credit	
(k)	9,840	Bal.	2,650
		(a)	5,100
		(c)	600
		(e)	3,500
		(g)	5,800

Primary Accounts

Supplies

Debit		Credit	
Bal.	200	(f)	400
(c)	600		

Payroll

Debit		Credit	
(g)	5,800	Bal.	450
		(d)	5,900

Raw Materials

Debit		Credit	
Bal. 500 at 2.80	1,400	(b) 500 at 2.80	1,400
(a) 1,700 at 3	5,100	1,500 at 3	4,500

Service Departments

Service Dept. X

Debit		Credit	
(d)	400	(h)	1,400
(e)	950		
(f)	50		
	1,400		1,400

Service Dept. Y

Debit		Credit	
(d)	700	(h)	1,000
(e)	300		
	1,000		1,000

Service Dept. Z

Debit		Credit	
(d)	300	(h)	1,200
(e)	800		
(f)	100		
	1,200		1,200

Processing Departments

Process 1

Debit		Credit	
(b)	5,900	(j)	1,000
(d)	2,900	(i) To Process 2	11,000
(e)	980		
(f)	170		
(h)	2,050		
	12,000		12,000

Process 2

Debit		Credit	
(d)	1,600	(j)	14,700
(e)	470		
(f)	80		
(h)	1,550		
(i) From Process 1	11,000		
	14,700		14,700

Perpetual Inventory of Finished Goods

Product A

Debit		Credit	
Bal. 250 at 2	500	(k) 500 at 2	1,000
(j) 500 at 2	1,000		

Product B

Debit		Credit	
Bal. 100 at 10	1,000	(k) 100 at 10	1,000
(j) 1,500 at 9.80	14,700	(k) 800 at 9.80	7,840

Flow of Costs Through Factory Ledger Accounts, Showing Determination of Unit Process Costs

	(i)		
Product A		1,000	
Process 1			1,000
To credit Process 1 at net market value of $2 a unit for 500 units of By-product A			
	(i)		
Process 2		11,000	
Process 1			11,000
To transfer to Process 2 the 1,500 units of Product M at the net cost after deducting by-product credit			
	(j)		
Product B		14,700	
Process 2			14,700
To record the cost of 1 500 units of Product B completed in Process 2			
	(k)		
General Ledger		9,840	
Product A			1,000
Product B			8,840
To record the cost of goods shipped to the main office during April as follows			
Product A			
500 units at $2	$1,000		
Product B			
100 units at $10 $1,000			
800 units at $9 80 7,840	8,840		

A trial balance of the factory ledger accounts, shown in the flow chart on page 537, is as follows

AB PROCESSING COMPANY
TRIAL BALANCE OF FACTORY LEDGER
APRIL 30, 1949

Raw Materials (200 at $3)	600	
Product A (250 at $2)	500	
Product B (700 at $9 80)	6,860	
Supplies	400	
Payroll		550
General Ledger		7,810
	8,360	8,360

INVENTORIES OF PARTIALLY PROCESSED MATERIALS In the preceding illustration it was assumed that the goods were completely processed at the end of the accounting period. In such cases the determination of unit costs is a simple problem in division Frequently, however, materials in process do exist at the end of the

period, and not all of the charges to the process account should be included in the cost of the finished units. A portion of the charges to the process belongs to the partly processed materials.

When a portion of the materials is only partially processed at the end of a cost period, it is necessary to divide the total processing costs between the finished goods and those partially finished. This involves calculation of (a) the number of *equivalent units* processed and (b) the cost of processing an equivalent unit in that month. To illustrate the calculation of equivalent units processed, assume a beginning inventory of 1,500 units ⅓ processed, the addition of 8,500 units during the month, and at the end of the month 7,000 units completed and 3,000 ½ processed.

To complete the processing of the beginning inventory of 1,500 units would require 1,000 equivalent units; of the 8,500 new units of raw materials added this month, 5,500 were completely processed, requiring 5,500 equivalent units, and 3,000 were ½ processed, requiring 1,500 equivalent units. This is tabulated below:

Beginning Inventory..	1,500 units × ⅔	= 1,000
New Raw Materials...	5,500 units × 1	= 5,500
New Raw Materials..	3,000 units × ½	= 1,500
	10,000 units	8,000 equivalent units

If the labor, overhead, and applied service department expenses totaled $4,800, the processing cost per equivalent unit would be 60 cents. It should be noted that processing cost, as used here, does not include materials; it includes those cost items applied to materials. If we assume that the beginning inventory of 1,500 units ⅓ processed cost $975 and that the new materials added during the month cost $3,400, the process account would be as follows:

PROCESS

Inventory 1,500 at .65.. . . .		975	Completed 7,000 consisting of	
Materials 8,500 at .40.		3,400	1,500 at [.65+(⅔×.60)]. . .	1,575
Labor.	2,000		5,500 at [.40+.60].	5,500
Overhead.	1,600			
Service A.	400		7,000 total cost.	7,075
Service B.	800	4,800	Inventory 3,000 ½ completed	
			3,000 at [.40+(½×.60)]. .	2,100
		9,175		9,175

The process account shown above is for one cost period. The beginning inventory contains material costs and equivalent unit processing costs for the previous period. Since these units are finished

first, they will contain processing costs made up ⅓ at the previous period's rate and ⅔ at the current rate. The ending inventory will contain processing costs ½ at this period's rate and ½ at the rate of the next period.

The preceding illustration shows the emphasis that is placed on each accounting period's processing. The processing costs for this period are kept distinct from the processing costs of the preceding period. The materials costs of the new period are also kept separate. The production of each period is treated in the accounts as if it were processed separately.

The usual cost period is one month in length, but it is possible to have shorter periods, as a week, a day, or even an hour. The length of the period depends upon the situation in each processing department.

PROCESS COST ACCOUNTING IN SELLING At the beginning of the chapter it was stated that retailing and wholesaling consist of a series of processes that taken together produce sales These processes of distribution are sometimes called *functions of distribution.* One writer on the subject includes two functions or processes: (1) demand creation and (2) physical supply; still another, four processes: (1) advertising, (2) selling, (3) delivering, and (4) collecting. Whatever the analysis, each process or function involves expense items, the sum of which gives the cost of that function.

Assume for purpose of illustration that selling consists of two processes, (a) advertising and (b) personal selling. If in a given period the advertising costs are $200,000 and the personal selling costs are $1,300,000 for 100,000 units, the analysis of selling processes may be expressed as follows

Advertising	$ 200,000 ÷ 100,000 = $ 2 per unit
Personal selling	1,300,000 ÷ 100,000 = 13 per unit
Total	$1,500,000 ÷ 100,000 = $15 per unit

If the advertising is tripled, with a resulting decrease in personal selling of $300,000 and an increase in units sold of 60 per cent, an analysis of unit selling process costs would show:

Advertising	$ 600,000 ÷ 160,000 = $ 3.75 per unit
Personal selling	1,000,000 ÷ 160,000 = 6 25 per unit
Total	$1,600,000 ÷ 160,000 = $10 00 per unit

It is important for the management of any mercantile business to know what proportions of the various functions produce the sale of a unit of a product at the least cost.

The services rendered by mercantile stores may well be accounted for separately. A knowledge of these costs from period to period will assist management in meeting its many and varied problems. For example, delivery service, if rendered, may be purchased from parcel delivery companies or provided by the store's own trucks. A knowledge of relative costs will assist in the determination of the better policy. While cost is not the only factor in such a choice, it is nevertheless an important factor and should not be omitted.

It has been said that it costs more to sell the world's goods than to produce them. Efforts are constantly being made to reduce the price margin between the producer and the consumer. If services are made available to the consumer that he does not need or wish, the margin may be narrowed by the elimination of such service costs. Thus, today, the margin on foodstuffs has been reduced through the elimination of delivery and credit costs and the use of self-service. Careful studies of the costs of mercantile processes should point the way toward a more efficient system of distribution.

PROCESS COST ACCOUNTING IN OTHER FIELDS

Other fields of business have use for knowledge of process costs. In railroad transportation, it is common practice to calculate, for freight services, the cost per ton-mile; for passenger service, the cost per passenger-mile. In motor truck operation, calculations are made periodically to determine the cost per mile and the cost per ton-mile. In banks, costs are assembled and unit cost prices are determined in order to learn the relative profitableness of various depositors' accounts.

Outside the field of business, increasing use is being made of the principles of process costs. In educational institutions the cost per student and the cost per student-hour are found from period to period. In hospitals the cost per patient and the cost per patient-day have administrative uses. In all types of institutions cost studies are helpful to those responsible for the institutional policies.

The costs of services rendered by government are also receiving consideration. Much of the effort of experts in municipal accounting is pointed toward the discovery of various municipal costs. For example, taxpayers are interested in knowing how the cost of fire protection or the cost of police protection in their cities compares with similar costs in other cities.

PROCESS COSTS AND BUSINESS OPERATIONS

Some cost is attached to every business operation. To know the amount of this cost is to increase the intelligence applied to business activities.

Cost accounting goes beyond the first, or original, expense. The cost of coal itself may not be so important as the cost of heating or the cost of horse power. The fact that delivery expenses in general have decreased from $3,000 to $2,500 may not be so significant as the fact that the cost per ton mile has increased from 10 cents to 12 cents. It is not the original outlay that is so important but rather the use made of that original outlay. Such use is expressed in the costs obtained by cost accounting.

QUESTIONS

1. Is it possible to have any income-producing activity in a business enterprise without costs being involved? What are the costs (a) of granting credit? (b) of creating a demand for merchandise to be sold? (c) of obtaining the best services from employees?

2. (a) Does a business manager make any expenditures or incur any obligations without the belief that income will be affected favorably by his doing so? (b) Are all such transactions traceable to income?

3. Would you recommend a job order or a process cost system for (a) a print shop? (b) a flour mill? (c) an oil refinery? (d) an iron foundry?

4. Process H produces two products. How should the processing cost be allocated (a) if the products have different market values? (b) if one of the products has salvage value only?

5. On March 1 Process 2 has a balance of $2,400. (a) What elements of cost are included in this balance? (b) Will an increase in raw material prices affect the unit cost of the completed product derived from this balance? Explain.

6. A large department store, occupying four floors and the basement of a building, distributes its housing expenses on the basis of the floor space each occupies. Can you suggest a more equitable basis for distribution?

7. Distinguish between (a) a physical inventory and a perpetual inventory, (b) direct labor and indirect labor, (c) a job order cost system and a process cost system, (d) service department and process department.

8. If the rate of output remains the same, which will be more costly, a $2 an hour operator with a $50 machine or a $1 an hour operator with a $5,000 machine? Explain.

9. In a certain factory the cost of 100,000 units is $5 a unit, of 80,000 units, $6 a unit, of 60,000 units, $7 a unit, of 50,000 units, $7.50 a unit. Assume that the estimated sales volume for the year 1949 is 50,000 units. A large corporation offers $4 a unit for 50,000 units to be delivered in 1949. Would you advise the acceptance of this offer? Why?

10. The charges to Process B during March were: raw materials, $1,250; labor, $600; overhead, $500. Three products resulted: By-product X, 1,000 units selling at 25 cents a unit; Product A, selling at $1.25 a unit; and Product B, selling at 75 cents a unit. During the month 600 units of A and 400 units of B were produced. Set up the process account showing total costs of A and B.

11. Complete the following process account:

PROCESS A

1,500 units 1/3 completed. . . .	1,200	4,000 units completed.	
Materials 3,000 at .50.	1,500	500 units 1/2 completed.	
Labor.	900		
Overhead.	1,350		

Determine the cost of completed units and partially completed units.

PROBLEMS

1. The Nite-Day Plumbers sell a large line of household appliances. They also service and repair household equipment. These products and services are classified as three income-producing units: Stoves, Refrigerators, Washers, etc., Department; Repair Shop; Small Appliances Department. The manager wishes to know costs per dollar-income of operating the three units. Operating expenses that can be directly identified with one of the income-producing units are charged to that unit. Other expenses are charged to Buildings and Grounds Expense and to General Expense; they are then redistributed.

	Stoves, Refrig., Washers, etc., Dept.	Repair Shop	Small Appli-ances Dept.	Bldgs. and Grounds	General
Buildings, cost.				$20,000	
Equipment, cost.	$1,200	$2,000	$1,600		$400
Annual expenses:					
Salaries.	6,800	1,700	1,240		1,000
Insurance and taxes. .	40	110	50	100	24
Maintenance.				610	
Parts used.		900			
Advertising.					600
Utilities and supplies.					256
Depreciation:					
Buildings.				6%	
Equipment.	10%	10%	10%		10%
Distribution of:					
Electricity, $450.	1/5	1/5		1/5	2/5
General Expense.	1/3	1/3	1/3		

Instructions: (1) Prepare "T" accounts for the three income-producing units and the two expense accounts shown above. Record the foregoing data. Redistribute the buildings and grounds expense and the general expense to the income-producing units. The general expense is divided equally, the buildings and grounds expense, in proportion to the annual sales. The annual sales for the three income-producing departments are: Stoves, Refrigerators, Washers, etc. Department, $30,000, Repair Shop, $12,000, Small Appliances Department, $6,000.

(2) Compute operating cost per dollar-income for each of the three units.

2. The Sinclair Sales Company maintains its records so that cost analyses can be made of its three selling functions, which are then expressed as costs per unit sold. Costs not directly allocable to the three functions are charged to two service departments, which are utilized by the three functions as follows:

	SERVICE DEPT. A	SERVICE DEPT. B
Function 1	60%	50%
Function 2	10%	25%
Function 3	30%	25%

During the year the following transactions applicable to these three functions and the two service departments were:

(a) Salaries			
Function 1	$11,000	Service Dept. A	$ 8,800
Function 2	49,800	Service Dept. B	10,200
Function 3	6,800		
(b) Supplies used			
Function 1	$ 1,000	Service Dept. A	$ 1,800
Function 2	2,500	Service Dept. B	1,100
Function 3	1,300		
(c) Depreciation			
Function 3	$ 2,000	Service Dept. A	$ 9,200
		Service Dept. B	1,500
(d) Taxes			
Function 3	$ 200	Service Dept. A	$ 1,000
		Service Dept. B	150
(e) Insurance expired			
Function 2	$ 700	Service Dept. A	$ 1,600
Function 3	550	Service Dept. B	1,050
(f) Repairs			
Function 3	$ 150	Service Dept. A	$ 1,200
		Service Dept. B	800

(g) Heat, light, and power bills are chargeable to Service Dept. A, $6,100.

(h) Miscellaneous general expenses are chargeable to Service Dept. B, $5,200.

(i) Function 2 should be charged with traveling expenses of $9,000.

Instructions: (1) *Post the foregoing information to the required function and service department accounts.*

(2) Post the proper distribution of service department costs to the three functions, close the service department accounts.

(3) Compute unit costs for each of the three functions, assuming the sale of 100,000 units.

3. The trial balance of the factory ledger of the Household Preparations, Inc., was as follows on May 31, 1950:

Raw Material — 3,000 lbs.	$ 9,000	
Preparation 25 — 600 lbs. (finished product)	7,800	
Preparation 27 — 200 lbs. (finished product)	4,500	
Factory Supplies	220	
Payroll		$ 430
General Ledger		21,090
	$21,520	$21,520

No preparations were in process on May 31. Preparation 25 is the product of refining raw material in Processes A and B. Preparation 27 is produced when Preparation 25 is further refined in Process C. The company has a selling market for both preparations.

The products are subject to considerable weight loss in all three processes; costs are therefore determined by dividing the accumulated costs by the number of pounds produced in each process.

The operations for June were:

(a) Transactions with the general office:
Purchased 4,000 lbs. of raw material at $3.50 per pound, $14,000.
Purchased factory supplies, $1,030.
Factory payroll, $14,680.
Expenses charged to the factory, $1,700, apportioned as follows:
Service Department, $950.
General Factory Expense, $750.

(b) Supplies used: Service Department, $450; General Factory Expenses, $350.

(c) Payroll of $14,600, chargeable to Process A, $2,200; Process B, $5,500; Process C, $4,000; Service Department, $1,600; General Factory Expense, $1,300.

(d) Service Department distributed to Process A, 50%; Process B, 30%; Process C, 20%

(e) General factory expenses are distributed equally to the three processes.

(f) Placed 2,500 lbs. of raw material into Process A where a loss of 500 lbs. took place.

(g) The 2,000 lbs. produced in Process A were placed into Process B, from which 1,600 lbs. of Preparation 25 were produced and placed in stock.

(h) Placed into Process C the 600 lbs. of Preparation 25 on hand June 1 and 400 lbs. of the current month's production, from which 900 lbs. of Preparation 27 were produced.

(i) Finished products shipped to customers:
Preparation 25 — 1,000 lbs. (current month's production).
Preparation 27 — 600 lbs. (first-in, first-out).

Instructions: (1) Open accounts for Raw Material, Process A, Process B, Process C, Preparation 25, Preparation 27, Factory Supplies, Payroll, Service Department, General Factory Expense, and General Ledger.

(2) Record the beginning balances and the foregoing operations for June directly in the accounts (no journal entries are required) Record the transactions in the order given and make memoranda of quantities and prices per pound

(3) Balance and rule the accounts and take a trial balance of the factory ledger

4. The Temple Manufacturing Company produces Product X by a continuous processing procedure On December 31, 1950, the process account appeared as follows

Process A

Materials (10,000 at 50¢)	5,000	
Labor	2,000	
Overhead	2,800	
	9,800	

By this date 7,000 units of Product X had been completed and 3,000 units remained in process The latter were estimated to be ⅓ completed

In January the following internal transactions were completed

(a) 10,000 additional units of raw materials were put into production at 50 cents
(b) Labor costs for the month were $3,800
(c) Overhead amounted to $5,400
(d) The 3,000 units in process on December 31 were completed during the month, as well as 8,000 of the 10,000 which were put in process during the month, the remainder were ¾ completed on January 31, 1951

Instructions (1) Complete the process account as of December 31

(2) Enter the foregoing transactions of January in the account and complete the process

CHAPTER XXX

BUDGETS

ACCOUNTING FOR ESTIMATED FUTURE TRANSACTIONS

In previous chapters the accountant has been considered a historian who deals with the effects of past transactions. He has been primarily concerned with the recording and summarizing of actual happenings. His accounting has had nothing to do with the plans of management until those plans were crystallized into actual business transactions.

Business transactions are normally planned by the executives of an enterprise. Before any sales are made, the sales manager estimates their volume. Before any goods are produced, the factory manager schedules their production. Before any funds are raised by bank loan or bond issue, the method of the raising exists in the mind of the treasurer. These estimated future transactions, planned by management, precede the actual transactions that are recorded in the accounting system.

It is advisable to measure in accounting terms the financial effect of these plans of management. Because of his experience in measuring the financial effect of actual transactions, the accountant is best qualified to deal with these estimated future transactions. He assembles these plans for future transactions into an estimated profit and loss statement and an estimated balance sheet. He reports the effect of the co-ordinated plans before any action takes place. This preliminary report puts the plans down in black and white for permanent reference.

This dealing with estimated future transactions is called *budgeting*. If the plans deal with all the transactions of the ensuing period, they are known as a *master budget*. If they deal only with transactions affecting cash, they are called a *cash budget*. If they involve only income and expense transactions, they are called an *operating budget*. The *master budget*, which includes all of the data found in the cash budget and the operating budget, will form the principal subject matter of this chapter.

THE BUDGET PERIOD

In accounting projected into the future, as well as in accounting dealing with the past, a fiscal period must be set up. The period to be covered by planning ordinarily equals the period covered by reports of the past. Hence it

happens that the most commonly used budget period is the year Just as the accounting year is broken down into quarters or months so is the budget year divided into shorter intervals The annual budget with a "breakdown" into months is the type of budget commonly found The planning of the next year's operations is the prevailing budget procedure

In some planning the budget period is longer than a year If the plans involve the purchase of fixed assets that will last several years and a corresponding permanent increase in output, the budget period for such plans must necessarily be longer Public utilities, such as the telephone company, budget five or ten years ahead Automobile companies budget a year at a time because of yearly models offered consumers

PLANNING AND DOING IN BUSINESS MANAGEMENT In the development of scientific business management the separation of planning and doing has been a marked feature Complete plans are drawn up before actual operations are begun The proposed course of action is first put down on paper and approved by all of the executives concerned

This planning inevitably involves future transactions The sales manager plans to increase sales To provide the goods to be sold the factory superintendent plans to expand the plant and to increase employment The financial officer plans to extend additional credit and to seek new sources of capital All of these plans anticipate the actual transactions of the new period

If these planned transactions are organized in accounts and set up in a balance sheet and a profit and loss statement, a more complete picture is afforded of the combined effect of the plans on the business The cost of expanded operations may be so large that net profit is reduced In such a case contraction rather than expansion may be more desirable The net effect of all the proposed activities should be carefully considered by the management before such plans are put into action

In budgeting, planned transactions are accounted for by journal entries or by entries made directly in "T" accounts For example, if new machinery costing $100 000 must be purchased to provide for a proposed expansion in sales it may be necessary to issue bonds in order to provide the funds. Assuming the issue of $100,000 of 6% bonds in this case, the effect of the proposed transactions is illustrated below in "T" accounts.

Cash

(a)	100,000	(b)	100,000

Machinery

(b)	100,000		

Reserve for Depr. on Machinery

		(c)	10,000

Interest Payable

		(d)	6,000

Bonds Payable

		(a)	100,000

Profit and Loss Summary

(c) Depr. on Machinery	10,000		
(d) Interest on Bonds	6,000		

The estimated transactions (a) to (d) shown above illustrate the effect of this proposal on assets, liabilities, and expenses. When applied to the beginning account balances, these transactions, combined with all of the other planned transactions, will provide an estimated balance sheet at the end of the year and an estimated profit and loss statement for the year. The portrayal of budgeted transactions on accounting statements is an important part of the budget program.

If the resulting statements appear favorable and desirable, the planned operations should be distributed among the months of the new year. Actual transactions month by month should be compared with the estimated transactions. This comparison of real transactions with estimated transactions period by period is one of the valuable features of budgeting.

ESSENTIALS OF BUDGETARY CONTROL The procedure by which budgetary control is obtained must, of necessity, vary from business to business. Rarely can any two enterprises follow exactly the same procedure. In all cases, however, the essential features of budgetary control include (1) departmental estimates, (2) co-ordination of estimates, and (3) budget reports.

1. *Departmental Estimates.* Each department should prepare an estimate of its activities for the budget period. The method of stating these activities depends on the nature of the operations of the department. The sales department should usually show its estimated sales in both volume and value, and it should also show its estimates of the cost of making these sales. The production department should state the volume of production that it plans for the period and the amount of materials, labor, and manufacturing expenses that it estimates will be necessary to carry out this program. The purchasing department, the office manager's department, and similar departments should indicate their estimated expenditures for the period. Finally,

the financial department, using all the other estimates as a basis should estimate the cash receipts and the cash disbursements for the period

Accurate estimates of future operations are admittedly difficult to prepare Nevertheless plans must be made for the future, and the more difficult it is to plan, the more urgent it is that plans be made Even though the departmental estimates are not entirely accurate, they are better than no estimates at all There must be some chart for the future even if it is in rough outline

2 *Co-ordination of Estimates* Because of the interdependence of business departments some departments will need the estimates of other departments in making their own estimates The sales production and finance departments must work on the same fundamental plan They must agree on the quantity and kinds of goods to be produced and sold

The budget committee, consisting of the departmental heads, considers the proposed budget and makes such revisions as it thinks advisable The members are given an opportunity to defend their original estimates Finally the completed budget as revised is approved by the committee

3 *Budget Reports* Periodic reports comparing the estimated and the actual performance for the period should be made These periodic reports are usually for one month s operations In order to make possible the monthly reports the budgeted annual figures should be set up by months These monthly budgeted figures may then be compared with the actual figures as shown in the illustration on the opposite page

BUDGETARY CONTROL NOT A NEW IDEA All business firms practice budgetary control to a greater or less degree, although many of them do not realize the fact When rates of depreciation are established on fixed assets a budget on the life of these assets is made, when standard dividend rates are approved by the board of directors, a budget on the earning capacity of the organization is established, when the salaries of employees are agreed upon, a budget on the earning capacity of the employees is made All these budgets are changed from time to time as experience shows the need for correction in the original estimates

It may be found that the assets are depreciating more rapidly than was originally estimated, that the earning capacity of the business is greater or less than was originally believed, that the employees are

HARRISON TRADING COMPANY
BUDGET REPORT
FOR THE MONTH ENDED MARCH 31, 1950

	Actual This Month	Budget This Month	Increase or Decrease*
Income from Sales	35,000	30,000	5,000
Cost of Goods Sold:			
Mdse. Inventory, Mar. 1, 1950	40,000	38,000	2,000
Purchases	25,000	26,000	1,000*
Mdse. Available for Sale	65,000	64,000	1,000
Less Mdse. Inv., Mar. 31, 1950	45,000	48,000	3,000*
Cost of Goods Sold	20,000	16,000	4,000
Gross Profit on Sales	15,000	14,000	1,000
Operating Expenses:			
Selling Expenses:			
Sales Salaries	2,100	2,000	100
Advertising	1,000	800	200
Depr. of Store Equipment	500	500	...
Store Supplies Used	800	700	100
Misc. Selling Expenses	1,200	1,100	100
Total Selling Expenses	5,600	5,100	500
General Expenses:			
Office Salaries	1,200	1,200	...
Rent	1,500	1,500	...
Depr. of Office Equipment	400	400	...
Loss from Bad Debts	500	500	...
Misc. General Expenses	1,400	1,200	200
Total General Expenses	5,000	4,800	200
Total Operating Expenses	10,600	9,900	700
Net Profit from Operations	4,400	4,100	300
Other Income:			
Purchases Discount	600	700	100*
Other Expenses:			
Sales Discount	400	400	...
Interest Expense	500	500	...
Total Other Expenses	900	900	...
Net Deduction	300	200	...
Net Profit for March	4,100	3,900	200

more or less efficient than was originally supposed In the same manner estimates of sales, production finances, and expense should be made in the light of the best information available, and these estimates should be changed whenever more complete or more accurate information so dictates

PROCEDURE FOR MASTER BUDGET The master budget is usually the product of the budget committee It co-ordinates the departmental budgets and organizes them into a single budget for the business as a whole In the master budget are found all of the estimated transactions for the coming year When these transactions are accounted for, the estimated financial position at the end of the coming year together with the estimated financial progress during the year, will be available It is the function of the accountant to express the effect of the budgeted transactions in these two reports

In the construction of these reports the profit and loss statement and the balance sheet of the past year are used The amounts of proposed activities are expressed as fractional parts or percentages of the amounts for the year just past Because of his knowledge of these past statements and his ability to account for transactions the accountant is peculiarly fitted to serve the budget committee in the preparation of the accounting statements in the master budget

The estimated sales for the new year is the logical beginning point and perhaps the most significant figure in the budget plans aside from net profit If the business outlook is unfavorable, the sales manager may estimate a 25 per cent decline in sales unless prices are lowered, he may, however believe that with a decrease of about 10% in the selling price he can sell as many units as in the previous year If sales consist of two or more types each type must be calculated separately Assume that sales in 1949 consisted of 10 000 units of A at $30 and 20 000 units of B at $15 with total sales of $600 000 If prices are maintained but the number of units sold declines 25 per cent, the estimated sales will be $450 000 If, however, A units are reduced in price to $27 50 and B units to $12 50 and if the volume of units sold is maintained the estimated sales will be $525 000

At the budget meeting it will be necessary to determine whether it is better to maintain prices but to lose in number of units sold and sales in dollars ($450 000), or to lower prices but to maintain unit sales and thus have a better showing in total sales ($525 000) As explained in previous chapters, certain expenses are fixed and will not go down even though the number of units sold declines Other expenses are variable and move up and down with the quantity sold. By listing

the operating expenses under each plan, it is possible to determine which plan will produce the greater net profit.

If, in place of contraction, the outlook promises increased volume and the sales manager estimates an increase of 25 per cent at the existing prices, the effect of such increase in output on production policies and costs must be considered. The increased volume in sales may make advisable the installation of new machinery that would reduce labor costs. The payment for the new machinery may require that additional stock be sold or that bonds be issued. It may require expansion of sales force and increased advertising appropriation.

ACCOUNTING FOR THE MASTER BUDGET PLANS The balances, as indicated by the last balance sheet, should be set up in "T" accounts. The transactions incident to the proposed budget are then entered in these accounts. Since the master budget ordinarily includes the ending inventories, the estimated depreciation, and loss from bad debts, the trial balance prepared from the "T" accounts is an adjusted trial balance. It therefore provides, without need for adjustment, the amounts for the two estimated statements.

It may seem odd to prepare in January a profit and loss statement for the year ending in the following December and a balance sheet for a date almost a year hence. But to do this sets up a pattern with which actual transactions may be compared. It also co-ordinates in the financial statements the proposed actions for the coming year.

In order to carry out the comparison month by month, it is necessary, as stated before, to break down the annual budget into twelve monthly budgets. This breakdown makes possible monthly comparisons similar to that illustrated on page 551.

ILLUSTRATION OF ACCOUNTING FOR A MASTER BUDGET The profit and loss statement for the year ended December 31, 1949, and the balance sheet as of December 31, 1949, for the Borden Mercantile Company are given on pages 554 and 555. In addition, there are given the budgeted transactions for the year 1950, as planned at the final meeting of the budget committee. The accountant is asked to show the effect of the budgeted transactions on the financial position of the company, together with a budget of operations. The "T "accounts on pages 556 and 557 record the budgeted transactions and show what the results, as budgeted, would be. In order to save space, all budgeted profit and loss statement items are entered directly in the profit and loss summary account.

Profit and loss statement for the preceding year:

BORDEN MERCANTILE COMPANY
PROFIT AND LOSS STATEMENT
FOR YEAR ENDED DECEMBER 31, 1949

Sales			350,000
Cost of Goods Sold			
Merchandise Inventory, Jan 1, 1949		85,000	
Purchases		247,000	
Merchandise Available for Sale		332,000	
Merchandise Inventory, Dec 31, 1949		87,000	
Cost of Goods Sold			245,000
Gross Profit on Sales			105,000
Operating Expenses			
Selling Expense			
Sales Salaries	30,000		
Advertising	4,000		
Depreciation of Equipment	5,000		
Total Selling Expenses		39,000	
General Expenses			
Officers Salaries	15,000		
Office Salaries	15 000		
Depreciation of Buildings	5 000		
Loss from Bad Debts	1,750		
Misc General Expense	5,000		
Total General Expenses		41,750	
Total Operating Expenses			80,750
Net Profit from Operations			24,250
Other Income			
Purchases Discount		4,940	
Other Expense			
Interest Expense		3 000	
Net Addition			1,940
Total Net Profit before Provision for Federal Income Tax			26,190
Less Provision for Federal Income Tax			10,476
Net Profit after Provision for Federal Income Tax			15 714

Balance sheet at the end of the preceding year:

BORDEN MERCANTILE COMPANY
BALANCE SHEET
DECEMBER 31, 1949

ASSETS			
Current Assets:			
Cash		23,000	
Accounts Receivable	45,000		
Less Reserve for Bad Debts	2,200	42,800	
Merchandise Inventory		87,000	
Total Current Assets			152,800
Fixed Assets:			
Equipment	50,000		
Less Reserve for Depr.	25,000	25,000	
Buildings	100,000		
Less Reserve for Depr.	25,000	75,000	
Land		30,000	
Total Fixed Assets			130,000
Total Assets			282,800
LIABILITIES			
Current Liabilities:			
Accounts Payable	62,000		
Federal Income Tax Payable	10,476		
Total Current Liabilities		72,476	
Fixed Liabilities:			
Mortgage Payable		50,000	
Total Liabilities			122,476
PROPRIETORSHIP			
Common Stock		120,000	
Surplus		40,324	
Total Proprietorship			160,324
Total Liabilities and Proprietorship			282,800

Summary of estimated transactions for the budget year:

(a) It is estimated that sales will increase but that this increase can be accomplished without any change in the value of the inventory

(b) Sales all of which will be made on account, will increase 40% in volume with a 6% reduction in price

(c) Purchases, all of which will be made on account, will increase 40% in volume with a 10% decrease in unit prices

(d) Sales salaries must be increased 30% to take care of the increased sales

(e) The amount to be spent for advertising will be $4,800

(f) To provide for increased sales, a $40,000 addition to the building must be made New equipment costing $10,000 will be needed These improvements are expected to be completed by April 1, 1950

(g) Federal income tax payable of $10,476 will be paid

(h) Depreciation of equipment, 10% yearly

(i) The officers' salaries will be raised $2 500

(j) Office salaries are estimated to be $16,500

(k) Depreciation of building, 5% yearly

(l) Loss from bad debts, ½% of sales

(m) Miscellaneous General Expense estimated same as for 1949

(n) Purchases discount, 2% of purchases (to the nearest dollar)

(o) Interest on mortgage 6%

(p) In order to pay for the addition to the building and the new equipment the company will issue 500 ten year, 5% bonds, $100 par, at the beginning of the year

(q) Collections on account will have been made so that the balance of the accounts receivable account will be $48 000

(r) Payments on account will have been made so that the balance of the accounts payable account will be $32,700

(s) Provision for Federal income tax, 40% of net profit for 1950 (to the nearest dollar) The balance of the profit and loss summary account is closed into Surplus

Estimated accounts for the budget year

Cash

Balance	23,000	(d)	39,000
(p)	50 000	(e)	4 800
(q)	457,600	(f)	50,000
		(g)	10,476
		(i)	17,500
		(j)	16 500
		(m)	5 000
		(o)	3 000
		(p)	2 500
		(r)	334,296

Accounts Receivable

Balance	45 000	(q)	457 600
(b)	460,600		

Reserve for Bad Debts

		Balance	2,200
		(l)	2,303

Merchandise Inventory

Balance	87,000		

Equipment

Balance	50,000		
(f)	10,000		

Reserve for Depr. of Equipment

		Balance	25,000
		(h)	5,750

Buildings

Balance	100,000		
(f)	*40,000*		

Reserve for Depr. of Buildings

		Balance	25,000
		(k)	6,500

Land

Balance	30,000		

Accounts Payable

(n)	6,224	Balance	62,000
(r)	334,296	(c)	311,220

Federal Income Tax Payable

(g)	10,476	Balance	10,476
		(s)	21,100

Mortgage Payable

		Balance	50,000

Bonds Payable

		(p)	*50,000*

Common Stock

		Balance	120,000

Surplus

		Balance	40,324
		(s)	31,651

Profit and Loss Summary

(c)	Purchases	311,220	(b)	Sales	460,600
(d)	Sales Salaries	39,000	(n)	Purchases Discount	6,224
(e)	Advertising	4,800			
(h)	Depr. of Equipment	5,750			
(i)	Officers' Salaries	17,500			
(j)	Office Salaries	16,500			
(k)	Depr. of Buildings	6,500			
(l)	Loss from Bad Debts	2,303			
(m)	Misc. General Expense	5,000			
(o)	Mortgage Interest	3,000			
(p)	Bond Interest	2,500			
(s)	Fed. Income Tax Pay.	21,100			
(s)	To Surplus	31,651			
		466,824			466,824

The accountant must use his best judgment in determining just what the budgeted plans actually mean. Literal interpretations have been given to the preceding statements of estimated transactions. The

purchases discounts are set up at 2% of Purchases rather than 2% of the total debits to Accounts Payable The amount of goods purchased is taken as 40% above the purchases for 1949 rather than 40% above cost of sales for 1949 The amounts used for depreciation include nine months' depreciation on the new assets put into use on April 1, 1950

From the "T" accounts are prepared the estimated profit and loss statement and the estimated balance sheet for 1950 shown on pages 559 and 560 These statements show the financial effect of the budgeted transactions They indicate the goal that will be reached if every member in the organization measures up to the plans laid down in the budget

ADVANTAGES OF BUDGETARY CONTROL The preparation of the budget the presentation of the periodic comparisons, and the use of these accounting data by executives and their assistants provide a more effective working organization If budgets are to be prepared intelligently all those who are responsible for the preparation of budgets must think through their problems thoroughly Executives are given a chance to discuss with their assistants all the details of plans for the coming year Disagreements among members of the executive group are less likely to arise when budgeted plans have been agreed upon The comparative reports presented by the accounting department provide a satisfactory control over the operations.

IMPORTANCE OF BUDGETS TO ORGANIZATIONS NOT EARNING PROFITS Since organizations that do not earn profits are interested primarily in providing a particular service to their members at cost and since income must be provided to cover expenses or expenses must be limited to the income received budgets play a very necessary and important role in the financial management of such organizations. In the case of a university or a college the activities for the year can not be planned definitely until the income to be received is known In other cases in which an organization is interested primarily in providing a certain service for its members, the cost of providing this service must be estimated in order that the amount to be collected from the members for the service may likewise be calculated A budget is the best means of matching estimated income against proposed expenditures

In the case of political units, the Federal Government, state governments, and local governments, the budget is an important

Estimated profit and loss statement for the budget year:

BORDEN MERCANTILE COMPANY
ESTIMATED PROFIT AND LOSS STATEMENT
FOR YEAR ENDED DECEMBER 31, 1950

Sales			460,600
Cost of Goods Sold:			
Merchandise Inv., Jan. 1, 1950		87,000	
Purchases		311,220	
Merchandise Available for Sale		398,220	
Less Merchandise Inventory, Dec. 31, 1950		87,000	
Cost of Goods Sold			311,220
Gross Profit on Sales			149,380
Operating Expenses:			
Selling Expenses:			
Sales Salaries	39,000		
Advertising	4,800		
Depreciation of Equipment	5,750		
Total Selling Expenses		49,550	
General Expenses:			
Officers' Salaries	17,500		
Office Salaries	16,500		
Depreciation of Buildings	6,500		
Loss from Bad Debts	2,303		
Misc. General Expense	5,000		
Total General Expenses		47,803	
Total Operating Expenses			97,353
Net Profit from Operations			52,027
Other Income:			
Purchases Discount		6,224	
Other Expense:			
Mortgage Interest	3,000		
Bond Interest	2,500		
Total Other Expense		5,500	
Net Addition			724
Total Net Profit before Provision for Federal Income Tax			52,751
Less Provision for Federal Income Tax			21,100
Net Profit after Provision for Federal Income Tax			31,651

Estimated balance sheet at the end of the budget year:

BORDEN MERCANTILE COMPANY
ESTIMATED BALANCE SHEET
DECEMBER 31, 1950

ASSETS			
Current Assets			
Cash		47,528	
Accounts Receivable	48 000		
Less Reserve for Bad Debts	4,503	43,497	
Merchandise Inventory		87,000	
Total Current Assets			178 025
Fixed Assets			
Equipment	60 000		
Less Reserve for Depreciation	30 750	29 250	
Buildings	140 000		
Less Reserve for Depreciation	31,500	108,500	
Land		30 000	
Total Fixed Assets			167,750
Total Assets			345,775
LIABILITIES			
Current Liabilities			
Accounts Payable	32,700		
Federal Income Tax Payable	21,100		
Total Current Liabilities		53 800	
Fixed Liabilities			
Mortgage Payable	50 000		
Bonds Payable	50 000		
Total Fixed Liabilities		100 000	
Total Liabilities			153 800
PROPRIETORSHIP			
Common Stock		120 000	
Surplus		71,975	
Total Proprietorship			191 975
Total Liabilities and Proprietorship			345 775

feature of public administration. The chief administrative officer plans in advance the scope of the various activities under his administration and includes in this plan the costs. This constitutes the budget of his administration and is usually submitted for approval to the tax-levying body. The rates and kinds of taxes are an important factor in the preparation of every governmental budget.

Since the nature and amount of governmental and personal income can be estimated more accurately than business income, the budget will be more comparable with actual transactions of the ensuing fiscal period. There is, therefore, a tendency to confuse budgeting with accounting in these cases. The recording of the actual transactions is the historical phase of accounting and should be distinguished from the planned transactions of the future, which is the budget. Estimated tax revenue is a budgeted amount; the actual receipts from tax revenues are accountable transactions and therefore a part of the accounting records.

QUESTIONS

1. Frank Feldhouse says that he and the heads of the departments of his business spend considerable time in committee meetings, discussing the outlook for business, and that he cannot see any advantage for them in the preparation of a formal budget. Do you agree with Feldhouse? Why?

2. Do you believe that the management of a business having a large number of widely scattered branches would find it advantageous to have budgets presented by each branch manager? Why?

3. "It is not easy to co-ordinate sales possibilities with productive capacity. In fact, this co-ordination is one of the most difficult administrative problems." Do you think budgets would be of assistance in overcoming this difficulty?

4. "Fifty-one out of 93 companies reported that the executive in charge of budgets is either the treasurer or controller." This seems to differ from the procedure described in the chapter. Can you explain?

5. What advantages does a small firm derive from a budget to compensate for the labor and the time involved in making the budget?

6. "Budgets should be prepared in terms of units of responsibility." What does this statement mean?

7. The Purdue Company manufactures only on special order, whereas the Zenith Company manufactures for stock. Will the methods of preparing the budgets of these companies differ because of the difference in production policies? Explain.

WYMAN, INCORPORATED
Profit and Loss Statement
For the Year Ended December 31, 1949

Sales (12,000 units @ $100)			$1,200,000
Cost of Goods Sold:			
Merchandise Inventory, January 1 (1,100 units @ $65)		$ 71,500	
Purchases (11,900 units @ $65)		773,500	
Merchandise Available for Sale		$845,000	
Less Merchandise Inventory, December 31 (1,000 units @ $65)		65,000	
Cost of Goods Sold (12,000 units @ $65)			780,000
Gross Profit on Sales			$ 420,000
Operating Expenses:			
Selling Expenses:			
Sales Commissions ($5 per unit)	$60,000		
Advertising ($3 per unit)	36,000		
Depreciation of Store Equipment	20,000		
Miscellaneous Selling Expense	4,000		
Total Selling Expenses		$120,000	
General Expenses:			
Officers' Salaries	$30,000		
Office Salaries	18,000		
Office Supplies Used	9,000		
Depreciation of Office Equipment	2,000		
Loss from Bad Debts	6,000		
Rent	25,000		
Total General Expenses		90,000	
Total Operating Expenses			210,000
Net Profit from Operations			$ 210,000
Other Income:			
Purchases Discount		$ 7,735	
Other Expense:			
Sales Discount	$12,000		
Interest Expense	5,735		
Total Other Expense		17,735	
Net Deduction			10,000
Total Net Profit before Provision for Federal Income Tax			$ 200,000
Less Provision for Federal Income Tax			80,000
Net Profit after Provision for Federal Income Tax			$ 120,000

Sales The selling price, which has been $100 per unit, is to be increased to $125 It is anticipated that this price increase will result in a sales volume decrease of 2 000 units

Cost of Goods Sold The unit cost has been $65, but it has been advanced to $75 as of January 1, 1950 Purchases will be made of as many units as are expected to be sold so that the ending inventory will be 1,000 units.

Selling Expenses

(a) Sales commissions will be computed at $6 per unit.
(b) The amount to be spent for advertising for the coming year is to be $4 per unit.
(c) Depreciation of store equipment will be the same as for the preceding year
(d) Miscellaneous selling expenses will increase by $1,000

General Expenses

(a) Officers' salaries will increase $15 000
(b) Office salaries will increase $2 000
(c) Office supplies used will increase $2 750
(d) Depreciation of office equipment will be the same as for the preceding year
(e) Loss from bad debts is estimated at ¼ of 1% of sales
(f) Annual rental of building increases $5 000 per lease agreement.

Other Income and Expenses Cash discounts are to be estimated at 1% of sales and purchases respectively Interest expense is estimated at $5 000

Income Tax Assume that the Federal income tax rate is 40%

Instructions Prepare an estimated profit and loss statement for the year ended December 31, 1950

2. The estimated profit and loss statement included in the 1950 annual budget of Richard Ryan, Inc, is given on page 565 The actual profit and loss statement for the month of January, 1950, is given on page 566

In order to compare the actual profit and loss statement figures for January, 1950, with the budgeted figures for the same month, it will be necessary to take into account the following variations in the monthly breakdown of the annual budget figures

(a) Sales for January were estimated at 10% of annual sales. Expenses that were expected to vary proportionally with sales were sales commissions, advertising, store supplies used, loss from bad debts, and interest income
(b) The beginning inventory in the January budget was estimated at $45,000, the ending inventory at $35,000 The cost of goods sold and the gross profit on sales were computed at the same percentage of sales as in the annual budget. (Note Purchases will not be 10% of annual budget)
(c) Fixed expenses that were not expected to vary with sales were sales and office salaries, rent, depreciation of store and office equipment, office supplies used, and miscellaneous general expense

RICHARD-RYAN, INC.
ESTIMATED PROFIT AND LOSS STATEMENT
FOR YEAR ENDING DECEMBER 31, 1950

Sales....................			$800,000
Cost of Goods Sold:			
Merchandise Inventory, January 1, 1950		$ 50,000	
Purchases............... ...		580,000	
Merchandise Available for Sale		$630,000	
Less Merchandise Inventory, December 31, 1950		70,000	
Cost of Goods Sold.......			560,000
Gross Profit on Sales............			$240,000
Operating Expenses:			
Selling Expenses:			
Sales Salaries...............	$48,000		
Sales Commissions	20,000		
Advertising....................	16,000		
Depreciation of Store Equipment	6,000		
Store Supplies Used	5,500		
Total Selling Expenses.		$ 95,500	
General Expenses:			
Office Salaries...............	$24,000		
Rent........................	18,000		
Depreciation of Office Equipment	3,000		
Office Supplies Used.	2,400		
Loss from Bad Debts..	8,000		
Misc. General Expense	3,600		
Total General Expenses		59,000	
Total Operating Expenses.			$154,500
Net Profit from Operations			$ 85,500
Other Income:			
Purchases Discount. ...	$10,500		
Interest Income.	1,000		
Total Other Income. .		11,500	
Other Expense:			
Sales Discount... . . .	$16,000		
Interest Expense .	6,000		
Total Other Expense.		22,000	
Net Deduction			10,500
Net Profit...................................			$ 75,000

RICHARD-RYAN, INC.
Profit and Loss Statement
For the Month Ended January 31, 1950

Sales			$72,000
Cost of Goods Sold			
Merchandise Inventory, January 1, 1950		$55,000	
Purchases		40,400	
Merchandise Available for Sale		$95,400	
Less Merchandise Inventory, January 31, 1950		45,000	
Cost of Goods Sold			50,400
Gross Profit on Sales			$21,600
Operating Expenses			
Selling Expenses			
Sales Salaries	$3,750		
Sales Commissions	1,800		
Advertising	1,440		
Depreciation of Store Equipment	500		
Store Supplies Used	495		
Total Selling Expenses		$ 7,985	
General Expenses			
Office Salaries	$2,000		
Rent	1,800		
Depreciation of Office Equipment	250		
Office Supplies Used	200		
Loss from Bad Debts	720		
Miscellaneous General Expense	300		
Total General Expenses		5,270	
Total Operating Expenses			13,255
Net Profit from Operations			$ 8,345
Other Income			
Purchases Discount		$ 1,050	
Interest Income		90	
Total Other Income		$ 1,140	
Other Expense			
Sales Discount	$2,000		
Interest Expense	300		
Total Other Expense		2,300	
Net Deduction			1,160
Net Profit			$ 7,185

(d) Because of the increased cash receipts expected during January, the items listed below were estimated as follows:
Purchases Discount, 1/10 of annual figure.
Sales Discount, 1/8 of annual figure.
Interest Expense, 1/20 of annual figure.

Instructions: Prepare a budget report, like the one on page 551, of the profit and loss statement for January, 1950.

3. Budget statements for 1950 are to be prepared for Dodge, Incorporated, from the following data:

DODGE, INCORPORATED
POST-CLOSING TRIAL BALANCE
DECEMBER 31, 1949

Cash	$ 50,000	
Accounts Receivable	30,000	
Reserve for Bad Debts		$ 2,000
Finished Goods	60,000	
Goods in Process	70,000	
Raw Materials	50,000	
Machinery and Equipment	165,000	
Reserve for Depr. of Machinery and Equipment		60,000
Factory Supplies	16,000	
Accounts Payable		54,000
Dividends Payable		18,000
Federal Income Tax Payable		14,000
Bonds Payable, 6%		50,000
Common Stock, 2,000 shares, $100 par		200,000
Surplus		43,000
	$441,000	$441,000

The sales manager estimated during 1950 the sale of 7,500 units of A at $60 and the sale of 6,000 units of B at $50. All sales are made on account.

The general manager has made the following estimates:

(1) Estimated ending inventories of December 31, 1950, are:
(a) Raw materials, $42,000.
(b) Goods in process, $65,000.
(c) Finished goods, $50,000.

(2) Purchases to be made on account:

(a) Raw materials	$113,200
(b) Factory supplies	30,000
Total	$143,200

(3) Cash receipts:

(a) Sale of 1,000 shares of common stock at par	$100,000
(b) Collection of accounts receivable	735,000
Total	$835,000

CHAPTER XXXI

ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS

NECESSITY FOR ANALYSIS AND INTERPRETATION After the balance sheet and the profit and loss statement have been prepared to show the condition of the business and its progress during the past fiscal period, the significance of the information these statements contain must be interpreted for those who use them. The accountant who prepares the statements should be best fitted to explain them; so it is becoming more and more the practice of accountants to analyze and interpret the information that the statements contain. Some of the methods used by accountants to do this will be explained in this chapter.

The accounting statements of corporations are of interest to many groups, chief among these being management and stockholders. Management is the smaller group with an internal point of view; stockholders are the larger group with an external point of view. Management needs continuous information of current transactions in order to know from month to month the effects of operations. This understanding of financial condition and operating results is particularly helpful in planning for the new fiscal period. The accountant can give great assistance when the budget of the business is prepared by explaining items found in the accounting statements.

Stockholders, often numbering many thousands of individuals and institutional investors, are more concerned with the broader aspects of the business. Their interpretation is therefore related to the questions of the long-term trend of profits and the comparative position of the business in its industry. They want to know whether to sell their stockholdings or to buy more. With the stockholders may be classed the professional analysts and investment counselors who make an intensive study of all companies whose stocks may be bought or sold.

COMPARISON OF ITEMS ON A PARTICULAR BALANCE SHEET A simple balance sheet of a merchandising corporation, used to illustrate the comparisons that may be made between items on the same balance sheet, is shown below. To make the comparisons less complicated and more easily followed, amounts have been expressed in even thousands of dollars.

working capital of the Miller Mercantile Company is $240,000; it is found by subtracting the total of the current liabilities from the total of the current assets.

The current ratio is a measure of a concern's working capital and an index of its ability to meet maturing debts. The greater the current ratio, the greater is the relative amount of working capital and the greater is the assurance that the concern will have sufficient funds to meet its current debts as they mature and the costs of carrying on its current business operations.

In certain types of businesses, however, concerns may continue to operate even when current liabilities exceed current assets. Such a condition is frequently found in public utility corporations without indicating any financial difficulty. In businesses that furnish services, that need no inventory of merchandise, and that have a minimum of receivables, a relatively large supply of cash would be unnecessary. Particular consideration must be given to the nature of the business and the characteristics of its normal financial operations to determine the adequacy of its current ratio.

(2) *Acid-Test Ratio.* This ratio indicates the ability of a business to satisfy immediately the current debts and is also of primary importance to management and to short-term creditors. In the determination of this ratio, consideration is given to only those assets that could readily be turned into cash if the need should arise. A ratio of 1 to 1, or 100 per cent, is usually deemed favorable. The usual formula is as follows:

$$\frac{\text{Cash} + \text{Receivables} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

The acid-test ratio of the Miller Mercantile Company is 7/8 to 1. This ratio appears to be unfavorable. Whether it represents a dangerous situation depends upon whether the notes payable must be paid in the near future or whether they can be renewed or refunded. The nature of the notes payable should be determined before a definite conclusion is made from the acid-test ratio. Again, in the use of this ratio, consideration must be given to the requirements and the operations of the particular business.

(3) *Ratio of Notes Payable to Accounts Payable.* On the balance sheet on page 570 the notes payable are larger than the accounts payable. To determine whether this indicates a desirable condition, it will be necessary to analyze the notes payable according to whether they were issued to (a) merchandise creditors, (b) note brokers or

COMPARISON OF CORRESPONDING ITEMS AND RATIOS ON DIFFERENT BALANCE SHEETS In order that a *more complete interpretation* of the balance sheet of the Miller Mercantile Company may be made, the balance sheet of the same company as of December 31, 1949, will be used. Both of these statements are shown in comparative form below:

MILLER MERCANTILE COMPANY
COMPARATIVE BALANCE SHEET
DECEMBER 31, 1950, AND DECEMBER 31, 1949

ASSETS	DEC. 31, 1950	DEC. 31, 1949	LIAB. AND PROP.	DEC. 31, 1950	DEC. 31, 1949
Cash	20,000	30,000	Notes Payable	100,000	20,000
Accounts Receivable	100,000	80,000	Accounts Payable	80,000	60,000
Mdse. Inventory	300,000	150,000	Bonds Payable	60,000	
Plant (net)	120,000	100,000	Preferred Stock	100,000	100,000
Good will	40,000	40,000	Common Stock	200,000	200,000
Deferred Charges	20,000	25,000	Surplus	60,000	45,000
Total Assets	600,000	425,000	Total Liab. and Prop.	600,000	425,000

Comparative Balance Sheet

Comparisons may be made of all items on a comparative balance sheet, and some benefit may usually be derived from these comparisons. There are, however, certain comparisons that are of special significance. With reference to the comparative balance sheet shown above, the more significant comparisons are as follows:

(1) The merchandise inventory of December 31, 1950, is twice as large as the inventory of December 31, 1949. Any one of several reasons may account for this increase:

(a) There may have been a large increase in the volume of business that necessitated an increase in the inventory. The comparative profit and loss statement of the company will have to be consulted to ascertain if the volume of business actually increased.

(b) A large amount of merchandise may have been purchased because of an anticipated increase in price or because of an estimated increase in business within the immediate future. Investigation will show whether much merchandise was purchased for either of these reasons.

(c) A large amount of unsalable goods may have been accumulated during the past year; or a large amount of merchandise may have been purchased because increased sales were anticipated during the year, but this merchandise is now on hand because the sales failed to materialize. A calculation of the merchandise turnover as shown by the comparative profit and loss statement will make it possible to determine whether either of these conditions exists.

(2) The balance sheet of December 31, 1950, shows an increase in the asset Plant over the amount of this asset on the balance sheet of

December 31 1949 An increase in the value of fixed assets may arise from any one of the following sources

(a) Additional assets may have been purchased If the actual or anticipated increase in business warranted such additions they were properly made

(b) The cost of repairs on the assets may have been charged to the asset accounts instead of to expense accounts Charging the cost of repairs to the asset accounts is of course highly improper since it overstates the assets and understates the expenses for the year

(c) The assets may have been appraised and on the basis of this revaluation their values may have been increased It is contrary to conservative accounting and management to enter the appreciation of fixed assets in the accounts or to show it on the financial reports Since fixed assets are not to be sold but are to be used in the conduct of the business an increase in their market values does not increase their efficiency and their value to the business is therefore not increased

A careful inspection should be made to ascertain the cause for the increases in fixed assets shown on the comparative balance sheet of the Miller Mercantile Company An analysis of the surplus account of the *company and of the expense accounts for the year will assist in the* determination of the cause for these increases

(3) By turning to the liabilities and proprietorship side of the comparative balance sheet it will be observed that the notes payable have greatly increased during the year 1950 The amount outstanding on December 31 1950 is five times the amount outstanding at the end of the previous year The accounts payable also have increased but not in proportion to the increase in the notes payable An analysis of the note payable item is desirable in order to determine to whom the notes have been issued If the notes have been issued to banks in order to obtain funds with which to discount merchandise invoices good financial management is indicated An inspection of the comparative profit and loss statement to see whether the purchases discounts for the latest year are larger than those for the previous year will indicate whether notes were issued for that reason This however will not be conclusive evidence and an analysis of the notes payable account should be made

(4) A new bond issue of $60 000 has been sold during the year This is more than the increase in fixed assets during the year, hence even if the increase in fixed assets is found to be proper, some additional funds for use as working capital have been obtained by means of the bond issue If this method of obtaining funds improves the current ratio, it may be considered as good financing The more conservative method would have the additional working capital supplied by the stockholders

(5) A comparison of considerable significance is that of the current ratios for the two years. For the year 1950 this ratio was $2\frac{1}{3}$ to 1, whereas for the year 1949 it was $3\frac{1}{4}$ to 1. There has therefore been a considerable decrease in this ratio. Although the ratio for 1950 does not in itself appear unfavorable, the tendency indicated by the decrease in this ratio during the year may be decidedly undesirable. It seems necessary to ascertain whether the plans for the coming year will maintain the present ratio or whether a continued decrease is probable.

(6) The common stock of the company has remained stationary during the year, but the surplus has increased $15,000. The increase in the surplus looks favorable; but before a final decision on this point can be made, it will be necessary to ascertain:

(a) The origin of the increase in the surplus. It is important to know whether this increase has originated from the earnings of the year, whether it is the result of the writing up of fixed assets, or whether it has been obtained from other sources.

(b) The total earnings for the year. These earnings should be determined to see what part of them has been retained as surplus. It will be desirable to ascertain also whether the regular dividends have been paid.

COMPARISON OF ITEMS ON ONE PROFIT AND LOSS STATEMENT The profit and loss statement of the Miller Mercantile Company for the year ended on December 31, 1950, is shown in the illustration on page 576. The most important comparisons that may be drawn in connection with a single income statement are illustrated by the percentages entered on this report. Each percentage represents the ratio of the particular item on the statement to net sales. These ratios are of a very great importance when taken in connection with the same ratios of previous years, but are of little significance when taken by themselves. This is due to the fact that, unless there is some standard by which to judge these ratios, there is no means of knowing whether they are too large or too small.

The percentage ratios on the profit and loss statement also indicate the distribution of the sales dollar over the cost of merchandise, the operating expenses, and the net profit. These ratios show that each dollar of the sales income of the Miller Mercantile Company is distributed as follows:

Cost of Goods Sold	$ .75
Operating Expenses	.15
Net Profit from Operations	.10
Total	$1.00

MILLER MERCANTILE COMPANY

PROFIT AND LOSS STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 1950

Income from Sales				
Sales			610,000	
Less Sales Returns and Allowances			10 000	
Net Sales			600,000	100 0%
Cost of Goods Sold				
Mdse Inventory, January 1, 1950		150,000		
Purchases		600,000		
Merchandise Available for Sale		750,000		
Less Mdse Inventory, Dec 31, 1950		300,000		
Cost of Goods Sold			450,000	75 0%
Gross Profit on Sales			150,000	25 0%
Operating Expenses				
Selling Expenses		60,000		
General Expenses		30,000		
Total Operating Expenses			90,000	15 0%
Net Profit from Operations			60 000	10 0%
Other Income				
Purchases Discount		9,000		
Other Expense				
Bond Interest	3,000			
Interest on Notes	6,000	9,000		
Net Profit before Provision for Federal Income Tax			60,000	10 0%
Less Provision for Income Tax			24 000	4 0%
Net Profit after Provision for Federal Income Tax			36,000	6 0%
To Payment of:				
5% Preferred Dividends		5,000		
8% Common Dividends		16,000	21,000	3 5%
Added to Surplus			15 000	2 5%

Profit and Loss Statement Showing Significant Ratios to Net Sales

These figures mean that in each dollar of income that the company receives during the year, 75 cents represents the cost of merchandise; 15 cents represents the operating expense; and 10 cents represents the net profit from operations.

COMPARISON OF ITEMS ON TWO OR MORE PROFIT AND LOSS STATEMENTS Of more importance, however, in the analysis of corporation profit and loss statements is a comparison of the corresponding items on a series of profit and loss statements. Such a series of statements covering a period of years will provide a normal standard of profit margin and of expense ratios. It will also indicate the trend of the size and the progress of the business in measuring the efficiency and the resourcefulness of the management.

Comparative profit and loss statements for the Miller Mercantile Company for the years 1949 and 1950 are shown on page 578.

A number of interesting comparisons can be made from this comparative statement. The most significant are:

(1) Net sales have increased one third. This increase in itself looks very favorable, but the results of the sales must be considered before a final conclusion is drawn.

(2) For the year 1949 the sales returns and allowances represent .4 per cent of the gross sales. For the year 1950 they represent 1.67 per cent of the gross sales. This increase probably indicates one or the other of two things:

(a) That poorer service is being given to the customers since more goods are being returned and more allowances are being claimed; or

(b) That new territories are being entered and, in the process of establishing new relations, more liberal privileges are being accorded to customers.

An analysis should be made of these returns and allowances to ascertain the reason for this increase.

(3) In 1949 the gross profit on sales was 30 per cent of net sales, whereas in 1950 it decreased to 25 per cent of net sales. This decrease indicates that the cost of goods sold has increased more than have sales. Examination should be made to ascertain if the plans for the coming year contemplate making provisions for this increase in the cost of goods sold.

(4) The merchandise turnover for the year 1949 was $2\frac{1}{2}$, whereas that for the year 1950 decreased to 2. Since there is a decrease in the rate of turnover, careful attention should be given to this matter.

Turnover is found by dividing the cost of goods sold by the average inventory. It represents the number of times the average inventory

(beginning inventory + ending inventory ÷ 2) was exchanged for cash or other assets. It is important, since the greater the merchandise turnover, the greater the profit that can be made from a given investment in merchandise.

(5) The selling expenses were 9 per cent of net sales for the year 1949 and 10 per cent for 1950. This increase shows that, though the sales are increasing, they are costing more. These increased expenses may have been incurred to obtain additional business and to build up goodwill for the company. The tendency for such expenses to increase faster than sales is, however, a dangerous one, and care should be taken that it does not continue too long.

(6) The net profit from operations for the year 1950 was smaller than that for 1949. This is the most discouraging information shown by the comparative statement. Since the net sales have increased 33⅓ per cent, it is unsatisfactory to find that the net profit has decreased. It may be found upon examination that some of the expenses incurred during 1950 are expected to result in increased business during the next year. Under such circumstances there would be some excuse for the unprofitable showing for the past year. A careful examination should be made to ascertain if this is the situation.

RELATION OF COMPARATIVE BALANCE SHEET AND PROFIT AND LOSS STATEMENT When the comparative balance sheet on page 573 is studied in connection with the comparative profit and loss statement on page 578, a number of significant facts are indicated:

(1) The comparative balance sheet shows a large increase in the merchandise inventory, and the comparative profit and loss statement indicates that this increase is much larger proportionately than the increase in sales. Whereas the sales have increased 33⅓ per cent, the merchandise inventory has increased 100 per cent. The comparative profit and loss statement also shows that the merchandise turnover has decreased greatly. These comparisons may indicate that unsalable merchandise is being accumulated and that there has consequently been a large increase in the merchandise inventory.

(2) The amount shown on the profit and loss statement for 1950 as added to surplus agrees with the increase in surplus as shown on the comparative balance sheets. This indicates that the balance sheet increase in surplus is real. The amount added in 1950 is, however, much less than in 1949. Unless the expansion of business justifies this decline as a temporary item, it is not favorable.

(3) The comparative profit and loss statement shows that the 8 per cent dividends on common stock have been continued even though there was a decline in net profit and even though the balance sheets give evidence of increased borrowing It might have been better to reduce the dividend rate on common stock in the year 1950

COMPARISONS WITH COMPETING CONCERNS A comparison of items and ratios shown in the financial statements of the Miller Mercantile Company with similar data taken from the financial statements of competitive concerns is of particular interest both to the management and to the stockholders To both groups such results are indicative of the company s position in its industry To the management, it shows the degree of success or failure in meeting the problems of the industry To the investor it reveals whether his choice of a stock has been wise The investor may choose to sell this stock and buy that of a more promising competitor

In comparing the financial statements of two or more corporations, care must be taken to make the comparison on the same accounting basis Unless uniform procedures have been maintained in the accounting records, misleading conclusions may result

QUESTIONS

1 The King Chain Stores System made a profit of $150,000 in a certain year What other information is necessary before one can judge the sufficiency of this profit?

2 One writer lists the five ailments of business as (1) insufficient profits (2) too large inventory (3) too large receivable, (4) over investment in fixed assets (5) insufficient capitalization What ratios will assist in diagnosing each of these ailments?

3 The sales of the King Chain Stores System increased in five years from $3 000,000 to $5 000,000 Does this increase prove the soundness of the policies in force?

4 The ratio of current assets to current liabilities in the King Chain Stores System was as follows for each of the five years mentioned above 3 to 1, 2 5 to 1, 2 to 1, 1 5 to 1, 1 2 to 1 Is a favorable trend indicated?

5 The Cook Department Store wishes to borrow $150 000 from its bank in order to pay accounts payable (a) What effect will this transaction have on the ratio of current assets to current liabilities? (b) on the acid test ratio?

6 The ratio of current assets to current liabilities in the Cook Department Store is 2.3 to 1 The acid test ratio is 1 to 1 If the inventories amount to $390,000, what is the amount of the current liabilities?

7. The sales of the Simons Stores System increased from $3,000,000 to $4,200,000. The average inventory, calculated at selling prices, increased from $600,000 to $700,000. Do these facts indicate sound management?

8. On successive balance sheets of Acme Motor Parts, Inc., accounts receivable are reported at $40,000 and $60,000. The corresponding profit and loss statements show sales of $360,000 and $600,000 respectively. (a) Are these facts related? (b) What executive is responsible for the condition shown?

9. The profit and loss statement of X shows purchases discounts of $4,256 and interest expense of $1,520. The profit and loss statement of Y, who is engaged in the same kind of business, shows purchases discounts of $152. The sales of both are approximately equal. Interpret this situation.

10. The balance sheet of the Dunn Manufacturing Company is as follows:

DUNN MANUFACTURING COMPANY
BALANCE SHEET
DECEMBER 31, 19 --

Cash	30,000	Notes Payable	20,000
Accounts Receivable	30,000	Accounts Payable	40,000
Merchandise Inventory	80,000	Mortgage Payable	20,000
Fixed Assets	180,000	Common Stock	200,000
		Surplus	40,000
	320,000		320,000

The profit and loss statement shows: net sales, $450,000; net profit after provision for income tax, $18,000; and dividends, 6%.

Calculate seven significant ratios and comment on the company as an investment.

PROBLEMS

1. The Cooper Corporation reported the following comparative balance sheets for December 31, 1949, and December 31, 1950:

ASSETS	1950	1949	LIABILITIES & PROP.	1950	1949
Cash	$ 12,000	$ 1,000	Notes & Accts. Pay.	$ 20,000	$ 22,000
Notes & Accts. Rec.	18,000	17,000	Mortgage Note Pay.	30,000	28,000
Mdse. Inventory	50,000	48,000	Common Stock	75,000	40,000
Fixed Assets	70,000	34,000	Surplus	25,000	10,000
Total Assets	$150,000	$100,000	Total Liab. & Prop.	$150,000	$100,000

3. V. Bogert is contemplating the purchase, at $95 a share, of 1,000 shares of stock of a new issue to be made by Excelsior, Inc. He asks you to investigate the financial condition of this corporation. The following are the comparative statements for the years ended December 31, 1950, 1949, and 1948.

EXCELSIOR, INC.
COMPARATIVE BALANCE SHEET
DECEMBER 31, 1950, 1949, AND 1948

ASSETS	1950	1949	1948
Current Assets:			
Cash	$ 50,000	$ 30,000	$ 15,000
Accounts Receivable	60,000	50,000	45,000
Inventories	90,000	70,000	40,000
Total Current Assets	$200,000	$150,000	$100,000
Fixed Assets:			
Equipment (net value)	$275,000	$225,000	$250,000
Buildings (net value)	50,000	55,000	50,000
Land	20,000	20,000	25,000
Total Fixed Assets	$345,000	$300,000	$325,000
Deferred Charges	5,000	10,000	15,000
Total Assets	$550,000	$460,000	$440,000
LIABILITIES			
Current Liabilities:			
Notes Payable	$ 37,500	$ 40,000	$ 25,000
Accounts Payable	67,500	50,000	40,000
Accrued Items	20,000	10,000	10,000
Total Current Liabilities	$125,000	$100,000	$ 75,000
Fixed Liabilities:			
Bond Payable	$125,000	$150,000	$200,000
PROPRIETORSHIP			
Common Stock	$210,000	$150,000	$125,000
Appropriated Surplus	30,000	25,000	15,000
Unappropriated Surplus	60,000	35,000	25,000
Total Proprietorship	$300,000	$210,000	$165,000
Total Liabilities and Proprietorship	$550,000	$460,000	$440,000

EXCELSIOR, INC
COMPARATIVE PROFIT AND LOSS STATEMENTS
FOR YEARS ENDED DECEMBER 31, 1950 AND 1949

	1950	1949
Sales	$375,000	$300 000
Cost of Sales	250 000	180,000
Gross Profit on Sales	$125 000	$120,000
Operating Expenses	65,000	75 000
Net Profit from Operations	$ 60,000	$ 45 000
Income Tax	23,700	16,000
Net Profit after Income Tax	$ 36,300	$ 29 000
Appropriations for Surplus Reserves	5,000	10,000
Balance of Net Profit	$ 31,300	$ 19,000
Dividends	6 300	9,000
Net Addition to Unappropriated Surplus	$ 25 000	$ 10,000

CHAPTER XXXII

SUPPLEMENTARY STATEMENTS

ADDITIONAL ACCOUNTING STATEMENTS

The two principal accounting statements, the balance sheet and the profit and loss statement, are being supplemented to an increasing degree by other summaries and reports. Some of these supplementary statements are derived from data found on successive balance sheets and profit and loss statements. Others are derived directly from the accounts or the journal records. They provide standard procedures for use in the analysis and interpretation of accounting reports.

Supplementary statements have been mentioned in previous chapters. The reconciliation of the bank balance, the report of job orders completed, the departmental expense reports, and the reports of physical inventories, all give periodic summaries containing information useful to management. The income tax report and the budget are also examples of supplementary statements prepared from the accounting records, each of which fulfills a specific purpose. Some supplementary statements are prepared more frequently than the principal statements because the summarizing information provided by them is needed at more frequent intervals than the information contained in the principal statements. For example, a business might have a daily cash report, a weekly report of production, and a monthly report of departmental expenses and costs.

Supplementary statements should be distinguished from accounting schedules. Schedules are formal reports, prepared from ledger accounts, supporting items appearing on one of the two principal accounting statements. They are, therefore, integral parts of the balance sheet and the profit and loss statement. Supplementary statements are not so closely tied in and tend to elaborate the information omitted on the formal accounting reports.

The purpose of this chapter is to describe two supplementary statements, the source and application of funds statement and the cumulative profit and loss statement. These two statements supplement the balance sheet and the profit and loss statement and are ordinarily presented annually. They are designed to provide a more adequate portrayal of financial position and progress.

other at the end of the period to be covered. If such a statement were to be prepared for the Miller Mercantile Company, whose reports were analyzed in the previous chapter, two columns might be added to the comparative balance sheet to show net excess of debits or credits for each balance sheet item during the period. Such a tabulation is shown below:

MILLER MERCANTILE COMPANY
COMPARATIVE BALANCE SHEET
DECEMBER 31, 1950 AND 1949

Assets	Dec. 31, 1950	Dec. 31, 1949	Excess of Debits	Excess of Credits
Cash	20,000	30,000		10,000
Accounts Receivable	100,000	80,000	20,000	
Merchandise Inventory	300,000	150,000	150,000	
Plant (net)	120,000	100,000	20,000	
Goodwill	40,000	40,000		
Deferred Charges	20,000	25,000		5,000
Total Assets	600,000	425,000		
Liabilities and Proprietorship				
Notes Payable	100,000	20,000		80,000
Accounts Payable	80,000	60,000		20,000
Bonds Payable	60,000			60,000
Preferred Stock	100,000	100,000		
Common Stock	200,000	200,000		
Surplus	60,000	45,000		15,000
Total Liabilities and Proprietorship	600,000	425,000	190,000	190,000

Comparative Balance Sheet Showing for Each Balance Sheet Item the Excess of Debits or Credits During the Period

The "Excess of Credits" items in the preceding tabulation represent source of funds items. Funds were provided by (a) profits reinvested, (b) the issue of bonds, (c) expansion of accounts payable, (d) increase in note borrowing, and (e) decreases in deferred charge inventories and in cash. The "Excess of Debits" items show the application of funds. The $190,000 provided was applied to increases in (a) plant, (b) merchandise inventory, and (c) accounts receivable. It is simple to obtain the following rules:

1. Excess of debit items indicate application of funds.
2. Excess of credit items indicate source of funds.

These general rules, when applied to the items in the balance sheet equation, provide the following tabulation:

Source of Funds	Application of Funds
− Assets	+ Assets
+ Liabilities	− Liabilities
+ Proprietorship	− Proprietorship

If a statement of financial changes is to be made for the Miller Mercantile Company in accordance with the above rules, it would appear as follows:

MILLER MERCANTILE COMPANY
Statement of Financial Changes
For Year Ended December 31, 1950

Where-Got		Where-Gone	
Cash	10,000	Accounts Receivable ..	20,000
Deferred Charges	5,000	Merchandise Inventory.	150,000
Notes Payable	80,000	Plant.	20,000
Accounts Payable	20,000		
Bonds Payable	60,000		
Surplus. .	15,000		
	190,000		190,000

Statement of Financial Changes

In order to make the source and application of funds statement more useful and more informative, it has become the practice (1) to arrange some items in a supporting schedule and (2) to expand other selected items. The supporting schedule is made up of all the current asset and current liability items and shows the net change in working capital. Such a schedule for the Miller Mercantile Company is shown below:

MILLER MERCANTILE COMPANY
Schedule A — Changes in Working Capital
For the Year Ended December 31, 1950

Increase in Current Assets:		
Accounts Receivable	20,000	
Merchandise Inventory	150,000	170,000
Less Decrease in Current Assets:		
Cash.		10,000
		160,000
Increase in Current Liabilities:		
Notes Payable	80,000	
Accounts Payable.	20,000	100,000
Net Increase in Working Capital		60,000

Schedule of Changes in Working Capital

The items to be expanded are the surplus and plant items. It is thought desirable to include in the statement information regarding depreciation of plant, purchases of new plant, and dividends paid to stockholders. Thus instead of showing surplus as a $15,000 source of funds, net profit after provision for income tax is shown as providing $36,000 of funds, out of which $21,000 is applied for the payment of dividends. Instead of showing plant (net) as a $20,000 application of funds, depreciation is shown as providing $20,000 of funds, and $40,000 is shown as applied to the purchase of a new plant. The net increase in working capital is taken from the preceding schedule and is shown as the first item in the "Application of Funds" part of the main statement. The source and application of funds statement for the Miller Mercantile Company is shown below:

MILLER MERCANTILE COMPANY
SOURCE AND APPLICATION OF FUNDS STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 1950

SOURCE OF FUNDS	
By: Net Profit after Provision for Income Tax	36,000
Sale of Bonds	60,000
Depreciation of Plant	20,000
Decrease in Deferred Charges	5,000
Total	121,000
APPLICATION OF FUNDS	
To: Net Increase in Working Capital (Schedule A)	60,000
Purchase of Plant	40,000
Payment of Dividends	21,000
Total	121,000

Source and Application of Funds Statement

CUMULATIVE PROFIT AND LOSS STATEMENT

The cumulative profit and loss statement covers the profit and loss activities of the business since it began operations. It therefore consists of the sum of all the annual profit and loss statements. If there have been ten annual profit and loss statements, the cumulative profit and loss statement would cover a ten-year period: the sales on the cumulative statement would be the sum of the ten sales items on the annual statements, and the net profit would be the net total of the profit and loss items.

The period of time covered by the transactions summarized in the cumulative profit and loss statement is the same as that covered by the balance sheet. Just as the cash balance in the balance sheet prepared at the end of the tenth year summarizes all the cash transactions for the ten years, so the purchases item in the cumulative profit and loss statement summarizes all purchases for the ten-year period. There is, therefore, a closer relationship between cumulative profit and loss statement items and balance sheet items than exists between the annual profit and loss statement and the balance sheet. This fact will be demonstrated later in the chapter.

COMPLETE STATEMENT RECORD A complete statement record of a business might be said to consist of a series of three reports of (a) income and (b) financial condition. These reports would cover (1) the life of the business, (2) the latest fiscal period, and (3) the historical progress. They would be tabulated as follows:

1. Income Reports:
   - (a) Cumulative profit and loss statement (life of business).
   - (b) Profit and loss statement (latest fiscal period).
   - (c) Tabulation of operating data (historical progress).
2. Financial Reports
   - (a) Balance sheet (life of business).
   - (b) Source and application of funds statement (latest fiscal period).
   - (c) Tabulation of financial data (historical progress)

The balance of this chapter will be devoted to the discussion of such reports, using the Fisher Manufacturing Company as an illustration.

OPERATING REPORTS, PROFIT AND LOSS STATEMENT The most common and most familiar operating report is the profit and loss statement summarizing the operating transactions during the latest fiscal period. The profit and loss statement for the Fisher Manufacturing Company for the year ended December 31, 1950, is given on page 591.

CUMULATIVE PROFIT AND LOSS STATEMENT Whereas the customary profit and loss statement summarizes the operations for one fiscal period, the cumulative profit and loss statement presents a summary of operations for the life of the business. The cumulative profit and loss statement for the Fisher Manufacturing Company is shown on page 592.

FISHER MANUFACTURING COMPANY

PROFIT AND LOSS STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 1950

Sales		1,500,000
Cost of Sales:		
Inventories, January 1, 1950	120,000	
Cost of Manufacturing Operations*	860,000	
	980,000	
Inventories, December 31, 1950	140,000	
Cost of Sales		840,000
Gross Profit on Sales		660,000
Selling and Administrative Expenses**		400,000
Net Profit from Operations		260,000
Interest on Bonds Payable		7,000
Net Profit before Provision for Income Tax		253,000
Less Provision for Income Tax		80,000
Net Profit after Provision for Income Tax		173,000
Reserve for Bond Sinking Fund		10,000
Profit Available for Dividends		163,000
Dividends in Cash		150,000
Profit to Surplus		13,000

*Depreciation included in Cost of Manufacturing:
On Equipment ... $40,000
On Building ... 15,000

**Depreciation included in Selling and Administrative Expenses:
On Equipment $20,000
On Building ... 10,000

Profit and Loss Statement

The cumulative profit and loss statement shown on page 592 treats the history of the Fisher Manufacturing Company as a unit. The results of twelve years of operations and the disposition of the profits are incorporated within the scope of the statement. No attempt has been made to identify earnings or expenses with specific years. Such identification was made in the profit and loss statement prepared at the close of each year. The trend of sales, cost of sales, net earnings, and dividends cannot, then, be determined from the cumulative profit and loss statement.

FISHER MANUFACTURING COMPANY
CUMULATIVE PROFIT AND LOSS STATEMENT
FOR TWELVE YEARS ENDED DECEMBER 31, 1950

Sales		10,070,000
Cost of Manufacturing Operations	6,505,000	
Inventories, December 31, 1950	140,000	
Cost of Sales		6,365,000
Gross Profit on Sales		3,705,000
Selling and Administrative Expenses		2,099,000
Net Profit from Operations		1,606,000
Interest on Bonds Payable		56,000
Net Income before Provision for Income Tax		1,550,000
Provision for Income Tax		195,000
Net Income after Provision for Income Tax		1,355,000
Reserve for Bond Sinking Fund		80,000
Income Available for Dividends		1,275,000
Dividends Paid in Cash	715,000	
Stock Dividends	500,000	1,215,000
Surplus, December 31, 1950		60,000

Cumulative Profit and Loss Statement

TABULATION OF OPERATING DATA It is sometimes desirable to classify the operations by years. In this case a few of the more significant items on the cumulative profit and loss statement are chosen in order to simplify the resulting tabulation. The significant operating items on the cumulative profit and loss statement of the Fisher Manufacturing Company have been classified by years in the tabulation shown on page 593. The amounts, as in the case of the cumulative profit and loss statement, have been obtained from the twelve annual profit and loss statements of the company.

Such a supplementary report by years gives significant information regarding the activities of the company during its history. The person who receives such a report gains a much more satisfactory understanding of the operations of the company than one who receives a report of the latest period only. While the analytical detail of the operations of any one fiscal period may be restricted, the useful information provided by such a tabulation more than compensates for this limitation.

Both the cumulative profit and loss statement and its supporting tabulation are being used today by large organizations in an attempt to give a better understanding to stockholders. It is believed that the lengthening of the period to include the life of the enterprise provides a summary that effectively supplements the balance sheet and the annual profit and loss statement.

FISHER MANUFACTURING COMPANY
TABULATION OF OPERATING DATA
FOR TWELVE YEARS ENDED DECEMBER 31, 1950

YEAR	NET SALES	NET PROFIT AFTER PROVISION FOR INCOME TAX	CASH DIVIDENDS PAID	PER CENT OF PROFIT PAID AS DIVIDENDS	PROFIT REINVESTED	DIVIDEND PER SHARE
1939	$ 820,000	$ 115,000	$ 10,000	9%	$105,000	$ 2.00
1940	430,000	55,000	......	.....	55,000	.....
1941	100,000	35,000	5,000	14	30,000	1.00
1942	300,000	60,000	10,000	17	50,000	2.00
1943	550,000	105,000	20,000	19	85,000	4.00
1944	800,000	130,000	45,000	35	85,000	9.00
1945	1,050,000	152,000	50,000	33	102,000	10.00
1946	1,300,000	165,000	100,000	61	65,000	10.00*
1947	800,000	75,000	75,000	100	......	7.50
1948	1,020,000	130,000	125,000	96	5,000	12.50
1949	1,400,000	160,000	125,000	78	35,000	12.50
1950	1,500,000	173,000	150,000	87	23,000	15.00
	$10,070,000	$1,355,000	$715,000	53%	$640,000	.....

*100% stock dividend December 31, 1946.

Tabulation of Operating Data

FINANCIAL REPORTS Next in importance to the transactions affecting proprietorship as reported on the profit and loss statement are the transactions affecting the principal balance sheet accounts. The balance sheet at the end of each fiscal period shows the net results of these transactions for the life of the business.

The following balance sheet of the Fisher Manufacturing Company is also from the twelfth annual report to the stockholders

FISHER MANUFACTURING COMPANY
BALANCE SHEET
DECEMBER 31 1950

Assets			Liabilities	
Current Assets			Current Liabilities	
Cash		120 000	Accounts Payable	35 000
U S Govern Securities		75 000	Taxes and Pay Rolls Acc	16 000
Notes Receivable		40 000	Income Tax Payable	80 000
Accounts Receivable		106 000		
Inventories		140 000	Total Current Liab	131 000
Total Current Assets		481 000	Fixed Liabilities	
			Bonds Pay (10 year 5%)	100 000
Fixed Assets				
Equipment	600 000		Total Liabilities	231 000
Less Reserve for Depreciation	160 000	440 000	PROPRIETORSHIP	
Buildings	500 000		Capital Stock ($100 par authorized 25 000 shares outstanding 12 000 shares)	1 200 000
Less Reserve for Depreciation	80 000	420 000	Premium on Cap Stock	30 000
Land		150 000	Reserve for Bond Sinking Fund	80 000
Total Fixed Assets		1 010 000	Surplus	60 000
Deferred Charges		110 000	Total Proprietorship	1 370 000
Total Assets		1 601 000	Total Liab and Prop	1 601 000

Balance Sheet

The balance sheet gives the financial condition of the company resulting from twelve years of operations The operations for the same twelve years were shown in the cumulative profit and loss statement presented on page 592 A comparison of these two statements will reveal the close relationship between them For example the amounts for Reserve for Bond Sinking Fund and Surplus are the same on both statements

TABULATION OF FINANCIAL DATA It is interesting to know how the principal balance sheet items have fared from year to year The annual ups and downs in current assets capital stock and

other items provide significant information. The totals of the main sections of each balance sheet from the beginning to the present time are shown in the following tabulation of financial data:

FISHER MANUFACTURING COMPANY
TABULATION OF FINANCIAL DATA (in thousands of dollars)
JANUARY 1, 1939, TO DECEMBER 31, 1950

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Current Assets	190	215	245	332	403	390	495	582	494	520	436	481
Fixed Assets	425	470	480	455	569	651	646	643	769	724	795	1,010
Deferred Charges	50	60	75	80	91	131	122	130	98	106	90	110
Total Assets	665	745	800	867	1,063	1,172	1,263	1,355	1,361	1,350	1,321	1,601
Current Liabilities	60	105	110	127	138	162	151	178	184	168	104	131
Fixed Liabilities					100	100	100	100	100	100	100	100
Capital Stock	500	500	500	500	500	500	500	1,000	1,000	1,000	1,000	1,200
Premium on Capital Stock	..	....	...	.	.	.	.	.		....	....	30
Reserve for Bond Sinking Fund	....	....	....	.	10	20	30	40	50	60	70	80
Surplus	105	140	190	240	315	390	482	37	27	22	47	60
Total Liab. and Prop.	665	745	800	867	1,063	1,172	1,263	1,355	1,361	1,350	1,321	1,601

Tabulation of Financial Data for Twelve Years

By comparing the changes in the various items from year to year, it is possible to reconstruct many of the financial transactions. For example, in 1943 current assets and fixed assets both rose sharply. During the same year bonds were issued for $100,000. This $100,000 bond issue and the $85,000 of reinvested income as shown by the tabulation of operating data (page 593) provided the money spent on the new assets. In 1944 the expansion of plant facilities evidently continued because fixed assets again increased, current assets decreased, and current liabilities showed a slight increase.

SOURCE AND APPLICATION OF FUNDS STATEMENT

The source and application of funds statement for the Fisher Manufacturing Company contains more items and is more complete than the one presented earlier in the chapter. Like it, however, this one is primarily dependent on balance sheet data in its preparation. By comparing the amount for each item on the balance sheet with the corresponding figure on the previous balance sheet, it may be determined whether that item provided or absorbed working capital during the period.

The profit and loss statements are secondary sources of information. The increase of surplus from \$35 000 to \$40 000 on two consecutive balance sheets is less informative than the fact that net profit for the period was \$10 000, dividends paid were \$6 000, and premium on new stock issued was \$1 000. This information, combined with an increase in common stock of \$10 000, tells that \$11 000 of net working capital was provided to finance expansion of facilities or retirement of debts.

On the other hand, a stock dividend increasing common stock and decreasing surplus would affect the funds not at all. In this case the increase in common stock does not affect working capital. All balance sheet changes must be analyzed as to whether they affect the fund position. Some do, others do not.

The period covered by the source and application of funds statement is usually one year, although it may be two, three, four, or five years or even the life of the business. If it covers the life of the business it is the same as the balance sheet. A comparative balance sheet for the Fisher Manufacturing Company, together with excess debits and excess credits, is given on page 597.

By using the excess of debits and credits amounts for current assets and liabilities as shown on the comparative balance sheet on page 597, it is possible to draw up the changes in working capital for the schedule to support the source and application of funds statement. Such a schedule for the Fisher Manufacturing Company is shown below.

FISHER MANUFACTURING COMPANY
SCHEDULE A — CHANGES IN WORKING CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 1950

Increase in Current Assets			
Notes Receivable	15 000		
Accounts Receivable	25 000		
Inventories	46 000	86 000	
Less Decrease in Current Assets			
Cash	16 000		
U. S. Government Securities	25 000	41 000	45 000
Increase in Current Liabilities			
Income Tax Payable		40 000	
Less Decrease in Current Liabilities			
Accounts Payable	12 500		
Taxes and Payrolls Accrued	500	13 000	27 000
Net Increase in Working Capital			18 000

Schedule of Changes in Working Capital

FISHER MANUFACTURING COMPANY
COMPARATIVE BALANCE SHEET
DECEMBER 31, 1950 AND 1949

	DEC. 31, 1950	DEC. 31, 1949	EXCESS OF DEBITS	EXCESS OF CREDITS
ASSETS				
Current Assets:				
Cash	120,000	136,000		16,000
U. S. Government Securities	75,000	100,000		25,000
Notes Receivable	40,000	25,000	15,000	
Accounts Receivable	80,000	55,000	25,000	
Inventories	166,000	120,000	46,000	
Fixed Assets:				
Equipment	600,000	450,000	150,000	
Buildings	500,000	400,000	100,000	
Land	150,000	100,000	50,000	
Deferred Charges	110,000	90,000	20,000	
Total Assets	1,841,000	1,476,000		
LIABILITIES				
Current Liabilities:				
Accounts Payable	35,000	47,500	12,500	
Taxes and Pay-Rolls Accrued	16,000	16,500	500	
Income Tax Payable	80,000	40,000		40,000
Fixed Liabilities:				
Bonds Payable (10 year, 7%)	100,000	100,000		
Valuation Reserves:*				
Reserve for Depr. of Equip.	160,000	100,000		60,000
Reserve for Depr. of Building	80,000	55,000		25,000
PROPRIETORSHIP				
Capital Stock, $100 par	1,200,000	1,000,000		200,000
Premium on Capital Stock	30,000			30,000
Reserve for Bond Sinking Fund	80,000	70,000		10,000
Surplus	60,000	47,000		13,000
Total Liab. and Prop.	1,841,000	1,476,000	419,000	419,000

*Because of the columnar arrangement, which makes the subtraction of the valuation items from the corresponding assets inconvenient, the valuation items are shown as an addition to the liabilities and the proprietorship.

Comparative Balance Sheet Showing for Each Balance Sheet Item the Excess of Debits or Credits During the Period

By reference to the profit and loss statement for 1950 and to accounts in the general ledger, it is possible to provide the data for a complete source and application of funds statement. Footnotes on the 1950 profit and loss statement show the amounts of depreciation included in manufacturing, selling, and administrative operations.

Ledger accounts will show that 2 000 shares of common stock were sold at $115 and that equipment, building and land were purchased at costs of $150,000, $100,000, and $50,000 respectively The source and application of funds statement for the Fisher Manufacturing Company for the year ended December 31, 1950, is shown below

FISHER MANUFACTURING COMPANY
SOURCE AND APPLICATION OF FUNDS STATEMENT
FOR THE YEAR ENDED DECEMBER 31 1950

	SOURCE OF FUNDS	
By	Net Profit after Provision for Income Tax	173 000
	Depreciation of Plant	85 000
	Sale of Capital Stock (2 000 shares at $115)	230 000
	Total	488 000
	APPLICATION OF FUNDS	
To	Net Increase in Working Capital (Schedule A)	18 000
	Purchase of Equipment	150 000
	Purchase of Building	100 000
	Purchase of Land	50 000
	Payment of Dividends	150 000
	Increase in Deferred Charges	20 000
	Total	488 000

Source and Application of Funds Statement

QUESTIONS

1 What accounting information regarding a business is omitted from the balance sheet and the profit and loss statement?

2 Does the source and application of funds statement supplement the balance sheet or the profit and loss statement? Explain

3 During depressions many corporations continue to declare and pay dividends even though they show small annual operating losses How could dividends be declared under these circumstances? How could dividends be paid without borrowing?

4 Why is the tabulation of operating data more informative than the cumulative profit and loss statement?

5 The Jones Mfg Co declared a 100% stock dividend At the end of the following year it had available for a dividend an amount of cash equal to that paid as a dividend before the declaration of the stock dividend What effect did the stock dividend have on the rate of the cash dividend?

6. An application of funds statement shows large increases in notes payable and accounts payable and large increases in accounts receivable and inventories. Is a favorable or an unfavorable condition indicated?

7. The source and application of funds statement for The X Mfg. Co. is shown below:

THE X MFG. CO.
SOURCE AND APPLICATION OF FUNDS STATEMENT
FOR YEAR ENDED DECEMBER 31, 19--

SOURCE OF FUNDS		APPLICATION OF FUNDS	
Cash	40,000 00	Accounts Receivable	70,000 00
Notes Payable	50,000 00	Inventories	80,000 00
Bonds Payable	300,000 00	Equipment	150,000 00
Surplus	10,000 00	Buildings	100,000 00
Total	400,000 00	Total	400,000 00

Does the statement illustrate an expanding or a contracting business?

8. If the Fisher Manufacturing Company had begun operations on January 1, 1939, with $600,000 in cash, how would a source and application of funds statement for the twelve-year period from January 1, 1939, to December 31, 1950, differ from the balance sheet shown on page 597? Explain.

PROBLEMS

1. The balance sheets of the Curtis Corporation for 1949 and 1950 were:

	DECEMBER 31 1950	DECEMBER 31 1949
ASSETS		
Cash	$ 45,000	$ 30,000
Accounts Receivable	42,000	50,000
Merchandise Inventory	33,000	20,000
Plant	150,000	100,000
	$270,000	$200,000
LIABILITIES, VALUATION RESERVES, AND PROPRIETORSHIP		
Accounts Payable	$ 12,000	$ 15,000
Bonds Payable	60,000	20,000
Reserve for Depreciation of Plant	19,000	10,000
Common Stock	120,000	100,000
Surplus	59,000	55,000
	$270,000	$200,000

The surplus account on December 31, 1950, was as follows:

Surplus

1950			1949			
June 20	Cash dividend	12,000	Dec 31	Balance	55,000	
			1950			
			Dec. 31	Net profit after income tax	16,000	

A plant expansion of $50,000 was completed on January 2, 1950 Depreciation is computed at 6% a year

Sold 200 shares common stock at par, $100

Instructions Prepare a source and application of funds statement with a supporting schedule for working capital

2. The balance sheets of Beaumont, Inc. for 1949 and 1950 are as follows:

	December 31	
Assets	1950	1949
Cash	$ 63,000	$ 35,000
Merchandise Inventory	97,000	45,000
Equipment	105,000	100,000
Buildings	150,000	100,000
Land	45,000	20,000
	$460,000	$300,000
Liabilities and Proprietorship		
Reserve for Depreciation of Equipment	$ 20,000	$ 10,000
Bonds Payable	100,000	
Reserve for Depreciation of Buildings	7,500	3,000
Capital Stock	200,000	200,000
Surplus	132,500	87,000
	$460,000	$300,000

The equipment accounts and the surplus account on December 31, 1950, were as follows (Note the sale of equipment on January 2, 1950)

Equipment Account

1949			1950		
Jan 2	Original cost	100,000	Jan 2	Sale of equipment	5,000
1950					
Jan 2	Additions cost	10,000			

Reserve for Depreciation of Equipment

1950			1949		
Jan. 2	Sale of equipment	500	Dec. 31	10% depreciation	10,000
			1950		
			Dec. 31	10% depreciation	10,500

Surplus

1950			1949		
Jan. 2	Loss on equip. sold	500	Dec. 31	Balance	87,000
Dec. 15	Cash dividend	12,000	1950		
			Oct. 15	Write up of land	25,000
			Dec. 31	Net profit for year	33,000

Additions were made to buildings on January 2, 1950, in the amount of $50,000. Annual depreciation is computed at the rate of 3%.

Instructions: Prepare a source and application of funds statement with a supporting schedule for working capital.

3. The tabulation of operating data for Freeman Products, Inc. is shown below. This tabulation covers the five-year period ended on December 31, 1950. On December 31, 1946, the corporation had outstanding 5,000 shares of common stock, each share having a par value of $100.

FREEMAN PRODUCTS, INC.
Tabulation of Operating Data
For Five Years Ended on December 31, 1950

Year	Net Sales	Net Profit After Income Tax	Ratio of Income to Sales	Dividends Declared	Profit Rein-vested	Dividend Rate
1946	$ 600,000	$ 60,000	10%	$ 50,000	$10,000	10%
1947	750,000	90,000	x	x	x	15%
1948	900,000	x	10%	x	x	10%
1949*	900,000	135,000	x	130,000*	x	x
1950	900,000	x	15%	90,000	x	x
Totals	$4,050,000	x		x	x	

*The dividend for 1949 included a stock dividend of 20% declared in January of that year. All cash dividends declared in that year applied to the new stock as well as to the old.

Instructions: (1) Supply the data omitted in the tabulation and indicated by an x.

(2) During the five-year period the gross profit on sales amounted to $1,650,000, and the selling and administrative expenses were $800,000. Assuming that the average income tax rate was 40%, construct a cumulative profit and loss statement for the five-year period ended on December 31, 1950.

APPENDIX A

SUPPLEMENTARY PROBLEMS

CHAPTER 1

Problem 1-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter I

Gilbert Myers bought land, erected a theater building, and carried on operations for the month of December Record the following transactions in tabular form similar to that used in Question 7 at the end of Chapter I The headings to be used are

Assets	=	Liabilities	+	Proprietorship
Cash + Equip + Bldg + Land	=	Accounts Pay + Mortgage Pay.	+	Gilbert Myers

(a) Invested cash, $10,000
(b) Paid cash for land, $2,500
(c) Constructed a theater building costing $15,000, paying $5,000 cash and giving a mortgage for $10 000
(d) *Purchased equipment on open account for $12,000, making a down* payment of $2 000 cash, the balance to be paid $2,500 a month
(e) Cash receipts for December were $15,000
(f) Paid cash for operating expenses for the month, $10,500
(g) Made the monthly payment required in (d)
(h) Withdrew $1 000 for personal use

(1) Did proprietorship increase or decrease from transactions (a) to (h) and by how much?
(2) Analyze the elements causing the increase in proprietorship, namely net operating profit and drawings

Problem 1-B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter I

John Wilson opens a meat market. He will sell on account, customers *to pay in the following month Record the following transactions for* June in tabular form similar to that used in Question 7 of Chapter I The headings to be used are as follows (headings are anticipated for July transactions):

Assets	=	Liabilities	+	Proprietorship
Cash + Accts Rec + Mdse + Equip	=	Accts Pay.	+	John Wilson

(a) Invested cash, $25 000
(b) Paid cash for equipment, $10,000
(c) Purchased merchandise on account, $18,000
(d) Sold merchandise costing $15,000 for $25,000 on account.
(e) Paid cash for operating expenses, $5,000
(f) Paid accounts payable, $7,500
(g) Withdrew cash, $1,500.

Mr. Wilson decides to increase his business. He plans to handle groceries and vegetables, which will require additional equipment and sales clerks. Record the following transactions for July:

(h) Invested additional cash, $5,000.
(i) Purchased additional equipment on account, $5,000.
(j) Collected cash on accounts receivable, $22,500.
(k) Purchased merchandise on account, $23,000.
(l) Sold merchandise costing $24,000 for $40,000 on account.
(m) Paid cash for operating expenses, $6,000.
(n) Paid accounts payable, $16,500.
(o) Withdrew cash, $2,000.

(1) What were the amounts in the proprietorship column after transactions (a), (g), and (o)?
(2) What was the net increase in proprietorship for June? for July? What were the elements causing the increases?
(3) What figures in the above transactions will indicate whether or not the expansion was profitable?

CHAPTER 2

Problem 2-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter II.

On December 31, 1950, the end of a fiscal year, the assets and the liabilities of Harold Morgan are as follows:

Accounts Payable	$14,500	Office Equipment	$ 6,000
Accounts Receivable	10,000	Office Supplies	1,300
Building	12,000	Prepaid Insurance	1,800
Cash	2,000	Store Equipment	23,000
Land	4,000	Store Supplies	1,900
Merchandise Inventory	18,000	Wages Payable	500
Mortgage Payable	5,000		

At the beginning of the fiscal period on January 1, 1950, Harold Morgan's capital was $58,000. During the year he withdrew $13,400. The business showed a net income for the year of $15,400.

Instructions: (1) Prepare a balance sheet in account form showing Harold Morgan's financial condition on December 31, 1950, in accordance with the illustration on pages 28 and 29.

(2) Compute the following:
 (a) Current ratio.
 (b) Fixed ratio.
 (c) Owner's equity.
 (d) Creditors' equity.
 (e) Earning on capital (assume Mr. Morgan's services are worth $800 a month).
(3) What is the working capital?

Problem 2 B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter II

H A Samuel invested the following assets in a television and radio equipment store cash, \$5,000, merchandise inventory, \$20,000 Prior to opening on September 1, 1950, he completed the following transactions

(a) Purchased building, \$17,000 paying \$3,000 cash and giving a mortgage for the balance
(b) Purchased store equipment \$2 500, paying \$1,000 cash and the balance on account
(c) Paid cash for store supplies \$150
(d) Purchased additional merchandise on account, \$5,000

Instructions (1) Prepare a tabulation of the foregoing transactions in an equation form similar to that used in Question 7 of Chapter I The following headings are required Assets — Cash Merchandise Inventory, Store Equipment Building, Store Supplies Liabilities — Accounts Payable Mortgage Payable Proprietorship — H A Samuel

(2) Prepare a classified balance sheet as of September 1, 1950

CHAPTER 3

Problem 3 A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter III

The following data include the income and the expenses of William Evans for the six month period ended October 31 of the current year

Inventory, May 1	\$ 10 000	Advertising	\$ 250
Inventory, October 31	30 000	Rent Expense	4 800
Sales	200 000	Store Supplies Used	1 000
Purchases	150 000	Office Supplies Used	500
Freight In	10 000	Expired Insurance	1,200
Salaries of Sales Clerks	24 000	Misc Selling Expense	150
Office Salaries	8,000	Misc General Expense	100

Instructions (1) Prepare a classified profit and loss statement for the six month period

(2) Obtain the following ratios
   (a) Cost of goods sold, gross profit on sales, total operating expenses, and net profit from operations as a percentage of sales
   (b) Working capital turnover (working capital is \$20 000)
   (c) Merchandise turnover
   (d) Average age of receivables (accounts receivable \$20 000)

Problem 3-B

This problem may be completed in the workbook in the space provided for Problem 4, Chapter III.

On August 1 of the current year Robert Eddy invests $19,000 in cash and $11,000 in merchandise in a retail fur store. On August 31 his accounting records show the following assets, liabilities, capital, income, and expenses:

Cash	$ 7,000	Purchases	$76,000
Accounts Receivable	9,000	Freight In	2,000
Merchandise Inventory	14,000	Sales Salaries	6,750
Store Equipment	11,000	Advertising Expense	750
Office Equipment	8,000	Store Supplies Used	1,000
Store Supplies on Hand	500	Misc. Selling Expense	200
Office Supplies on Hand	200	Rent Expense	3,750
Prepaid Insurance	300	Office Salaries	1,800
Accounts Payable	10,000	Office Supplies Used	200
Robert Eddy, Capital, August 1	30,000	Expired Insurance	300
Sales	100,000	Misc. General Expense	250

Instructions: (1) Prepare a classified profit and loss statement for the month.

(2) Prepare a classified balance sheet as of August 31.

(3) Compute the following:
- (a) Current ratio.
- (b) Owner's equity.
- (c) Creditors' equity.
- (d) Working capital.
- (e) Merchandise turnover.
- (f) Working capital turnover.
- (g) Earnings on capital (assume Mr. Eddy's services are worth $4,000 a month).
- (h) Cost of goods sold, gross profit on sales, total operating expenses, and net profit as a percentage of sales.

CHAPTER 4

Problem 4-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter IV.

Phyllis Carnell plans to operate the Fairfax Stenographic Service. The accounts in her ledger are: Cash; Accounts Receivable; Equipment; Supplies; Prepaid Insurance; Notes Payable; Accounts Payable; Phyllis Carnell, Capital; Phyllis Carnell, Personal; Stenographic Fees; Salaries; Rent Expense; Utilities; Miscellaneous Expense.

Following are the transactions for June of the current year, the first month of operations:

(a) Invested cash, $750
(b) Purchased equipment for $1,000, giving $150 cash and a note payable for the balance
(c) Purchased supplies on account, $300
(d) Paid rent for the month, $125
(e) Cash receipts for the first week, $250
(f) Paid salaries, $145
(g) Purchased insurance on account $100
(h) Paid cash for supplies, $50
(i) Cash receipts for the second week, $300
(j) Paid salaries, $150
(k) Purchased additional equipment for cash, $75
(l) Paid telephone bill, $25 (Miscellaneous Expense)
(m) Cash receipts for the third week, $350
(n) Paid salaries, $200
(o) Purchased additional equipment on account, $375
(p) Paid cash for supplies $35
(q) Cash receipts for the balance of the month, $325
(r) Paid salaries, $175
(s) Paid accounts payable $125
(t) Paid utilities, $20
(u) Billed clients for work done and charged the accounts receivable account, $500
(v) Withdrew $400

Instructions (1) Record the foregoing transactions in "T" accounts. Identify each debit and each credit by the letter given for that transaction

(2) Prepare a trial balance as of June 30 of the current year

Problem 4-B

This problem may be completed in the workbook in the space provided for Problem 8, Chapter IV

Stanley Stearns operates the 4-S Catering Service The accounts in his ledger are Cash, Catering Equipment, Delivery Equipment, Catering Supplies, Prepaid Insurance, Accounts Payable, Stanley Stearns, Capital, Stanley Stearns, Personal, Catering Income, Food Purchases, Salaries, Rent Expense, Gas, Oil, and Delivery Repairs, Utilities; Laundry, Miscellaneous Expense On February 1 of the current year Mr Stearns' assets, liabilities, and proprietorship were as follows:

Cash	$ 2,000
Catering Equipment	5,000
Delivery Equipment	10,000
Catering Supplies	1,500
Prepaid Insurance	500
Accounts Payable	3 000
Stanley Stearns, Capital	16,000

Instructions (1) Open 'T' accounts for all of Mr Stearns' accounts.

(2) Record the beginning balances in the appropriate accounts Identify the balances in these accounts by "Bal"

During the month of February the following transactions were completed:

(a) Paid rent for the month, $300.
(b) Purchased catering supplies on account, $500.
(c) Purchased food on account, $1,300.
(d) Cash receipts for first week, $3,500.
(e) Paid salaries, $1,250.
(f) Purchased additional catering equipment on account, $1,000.
(g) Paid cash for insurance, $100.
(h) Cash receipts for second week, $2,500.
(i) Paid salaries, $1,250.
(j) Purchased food on account, $600.
(k) Purchased additional delivery equipment for $2,000, giving $500 cash, balance on account.
(l) Cash receipts for third week, $2,800.
(m) Paid salaries, $1,250.
(n) Paid accounts payable, $5,000.
(o) Paid telephone bill, $40. (Miscellaneous Expense)
(p) Purchased food on account, $2,100.
(q) Paid laundry, $35.
(r) Cash receipts for fourth week, $3,200.
(s) Paid salaries, $1,250.
(t) Paid gas, oil, and delivery repairs, $275.
(u) Paid utilities, $50.
(v) Withdrew $800.

Instructions: (3) Record the transactions in the "T" accounts. Identify each debit and each credit by the letter given for that transaction in the list of transactions.

(4) Take a trial balance as of the last day of February of the current year.

CHAPTER 5

Problem 5-A

This problem may be completed in the workbook in the space provided for Problem 8, Chapter V.

Bruce Adair operates a realty company, handling the selling and renting of real estate for a commission. The balances in the ledger accounts on December 31, 19-- are as follows:

Cash	$8,000	Bruce Adair, Capital	$ 9,835
Commissions Receivable	2,000	Bruce Adair, Personal	12,000
Equipment	5,000	Commissions Earned	51,500
Supplies	455	Commissions to Salesmen	25,000
Prepaid Insurance	720	Office Salaries	2,400
Prepaid Rent	1,000	Rent Expense (11 months)	5,500
Notes Payable	1,800	Utilities	550
Accounts Payable	825	Miscellaneous Expense	835

Adjustments for the year are:

Supplies on hand, $300

Expired insurance, $360

Prepaid rent represents first and last months' rent of a two-year lease, starting January 1 of the current year

Commissions payable to salesmen, $750

Instructions (1) Prepare a 10-column work sheet for the annual period. Identify corresponding debits and credits in the adjustment columns with the same letter

(2) Prepare a profit and loss statement and a balance sheet in report form.

(3) (a) What per cent of commissions earned is paid to salesmen?

(b) What percentage of gross income is retained by Mr Adair?

Problem 5-B

This problem may be completed in the workbook in the space provided for Problem 4, Chapter V

On October 1 of the current year Morris Lasky opened the Lasky X-Ray Laboratory The accounts in his ledger are as follows. Cash, Accounts Receivable, Laboratory Equipment, Laboratory Supplies, Prepaid Insurance, Prepaid Rent, Notes Payable, Accounts Payable; Morris Lasky, Capital, Morris Lasky, Personal, X-Ray Laboratory Fees, Technicians' Salaries, Utilities, Miscellaneous Expense

During the month of October the transactions were.

(a) Invested the following Cash, $1,850, Laboratory Equipment, $5,000, Laboratory Supplies, $650 Notes Payable, $3,000

(b) Paid cash for four months' rent in advance, $1,000

(c) Purchased laboratory equipment on account, $625.

(d) Paid cash for insurance, $360

(e) Purchased laboratory supplies on account, $135.

(f) Cash receipts, $1,200.

(g) Paid two weeks technicians' salaries, $750

(h) Paid cash for laboratory supplies, $65

(i) Paid cash for telephone $35 (Miscellaneous Expense).

(j) Cash receipts $1 800

(k) Paid two weeks technicians' salaries, $750

(l) Purchased laboratory supplies on account, $50.

(m) Paid cash for utilities, $60

(n) Withdrew $600

(o) Laboratory fees not paid for, $500

At the end of the month the following adjustments were required:

Laboratory supplies on hand, $450

Expired insurance, $30

Rent — assume that transaction (b) occurred on October 1.

Technicians' salaries payable, $375

Instructions (1) Record the foregoing transactions in "T" accounts. Identify corresponding entries by the letter given for that transaction

(2) Prepare a trial balance as of October 31 in the first two columns of a 10-column work sheet

(3) Complete the 10-column work sheet

(4) Prepare a profit and loss statement and a balance sheet in report form.

CHAPTER 6

Problem 6-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter VI.

Charles Canfield is the owner of the Children's Amusement Park. On December 31 of the current year the balances in his general ledger accounts are as follows:

Accounts Payable	$ 575	Miscellaneous Expense	$ 325
Buildings	2,500	Prepaid Insurance	480
Cash	1,250	Receipts	12,000
Charles Canfield, Capital	5,130	Rent of Land	1,200
Charles Canfield, Personal (dr.)	3,600	Salaries	4,500
Equipment	3,500	Supplies	350

Adjustments:

Supplies on Hand, $150.
Insurance Expired, $160.
Salaries Payable, $300.
Rent Payable, additional rent on land, 5% of receipts.

Instructions: (1) Record the December 31 balances in the accounts. Accounts required for this problem are: Cash; Equipment; Buildings; Supplies; Prepaid Insurance; Accounts Payable; Salaries Payable; Rent Payable; Charles Canfield, Capital; Charles Canfield, Personal; Profit and Loss Summary; Receipts; Salaries; Rent of Land; Supplies Used; Expired Insurance; Miscellaneous Expense.

(2) Prepare a trial balance in the first two columns of a ten-column work sheet and complete the work sheet. Prepare a profit and loss statement for the year and a balance sheet as of December 31 of the current year.

(3) Record the adjusting and the closing entries, and post to the ledger. Close the personal account to the capital account.

(4) Rule and balance the ledger accounts.

(5) Take a post-closing trial balance.

Problem 6-B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter VI.

Louis Franklin on September 1 of the current year commenced business as the Wilshire Landscape Architects. The following transactions took place during the month:

Sept. 1. Invested cash, $10,000.
1. Purchased two trucks for cash, $5,000.
2. Paid the first four months' rent, $1,000.
4. Collected fees, $500.
7. Paid insurance premiums for one year, $360.
10. Collected fees, $400.
12. Purchased equipment on account, $820.
14. Paid two weeks' salaries, $900.

16 Collected fees, $350
19 Paid cash for supplies, $240
20 Collected fees, $250
21. Paid cash for telephone and other miscellaneous expenses, $40
24 Purchased supplies on account, $90
28 Paid two weeks' salaries, $900
28 Paid accounts payable, $470
30 Withdrew $500 for personal use
30 Billed fees, $2,400 (Debit Accounts Receivable)

End-of-month adjustments:

Supplies Inventory, $50
Prepaid Insurance and Prepaid Rent (see original transactions).
Salaries Payable for September 29 and 30, $300

Instructions (1) Record the beginning investment and the transactions in the journal, and post to the ledger The accounts required are: Cash; Accounts Receivable, Equipment, Trucks, Supplies, Prepaid Insurance; Prepaid Rent, Accounts Payable, Salaries Payable; Louis Franklin, Capital; Louis Franklin, Personal, Profit and Loss Summary; Fees, Salaries, Rent Expense, Supplies Used, Expired Insurance, Miscellaneous Expense

(2) Prepare a trial balance in the first two columns of a ten-column work sheet and complete the work sheet Prepare a profit and loss statement and a balance sheet in report form for the month

(3) Record the adjusting and the closing entries, and post to the ledger. Close the personal account to the capital account.

(4) Rule and balance the ledger accounts.

(5) Take a post-closing trial balance

CHAPTER 7

Problem 7-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter VII

During April of the current year H F Rogers, owner of the Utility Lamp Company, completed the following transactions:

April 1. Invested the following: Cash, $5,000; Store Equipment, $1,500, Accounts Payable — Gumps, Inc. $1,000 (terms n/60, date of invoice March 31)
2 Purchased additional store equipment on account from Gumps, Inc., invoice dated April 1, terms n/60, $500. (Number purchases from 601)
5. Purchased merchandise on account from Hollywood Art Co, invoice dated April 4, 2 10 eom, $150
10 Purchased store supplies on account from X & Y Service Supplies, invoice dated April 9, terms n 30, $275
10. Purchased merchandise on account from National Lighting Outfits, invoice dated April 10, 1/5 eom, $375

April 15. Purchased office supplies on account from Woodworth Stationery Co., invoice dated April 13, n/30, $85.
15. Returned merchandise to National Lighting Outfits, $75.
16. Purchased merchandise on account from Hollywood Art Co., invoice dated April 15, 2/10 eom, $75.
19. Purchased office supplies on account from Woodworth Stationery Co., invoice dated April 19, n/30, $35.
20. Purchased merchandise on account from National Lighting Outfits, invoice dated April 19, 1/5 eom, $125.
25. Purchased merchandise on account from Sylvia Lamp and Shade Co., invoice dated April 24, 1/10, n/30, $2,400.
25. Returned store supplies to X & Y Service Supplies, $25.
27. Purchased merchandise on account from National Lighting Outfits, invoice dated April 27, 1/5 eom, $1,200.
28. Purchased store supplies on account from X & Y Service Supplies, invoice dated April 26, terms n/30, $350.
29. Purchased merchandise on account from Ken Chinese Lamps, invoice dated April 28, 2/10, n/60, $550.

Instructions: (1) Record the above transactions in a purchases journal similar to the one illustrated on pages 122 and 123 and in a general journal.

(2) Open the following accounts in the general ledger, using the page numbers indicated:

Store Equipment........	Page 10	Accounts Payable	Page 20
Store Supplies..........	Page 16	Purchases.	Page 30
Office Supplies...........	Page 17	Purchases Returns and Allowances....	Page 31

Also open the following accounts in the accounts payable ledger: Gumps, Inc.; Hollywood Art Co.; Ken Chinese Lamps; National Lighting Outfits; Sylvia Lamp and Shade Co.; Woodworth Stationery Co.; and X & Y Service Supplies.

(3) Post from the two journals to the accounts payable ledger and the general ledger (except Cash and H. F. Rogers, Capital).

(4) Prepare a schedule of accounts payable.

CHAPTER 8

Problem 8-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter VIII.

During August of the current year William Murray, owner of a wholesale novelty firm, completed the transactions given below. The terms of all sales were 2/10, n/30.

August 2. Sold merchandise on account to George Hall, 130 W. Oak Street, sale No. 102, $675.

August 9 Sold merchandise on account to Warren Wills, 575 E 7th Street, sale No 103, $80

12 Sold merchandise on account to Albert Smith, 8023 N Walnut Blvd, sale No 104, $135

16 Sold merchandise on account to George Hall, sale No 105 $90

18 Issued credit memorandum for $75 to George Hall for merchandise returned by him

19 Sold merchandise on account to John Thompson, 670 S Orange Ave, sale No 106 $850

21 Sold merchandise on account to Albert Smith, sale No 107, $170

26 Issued credit memorandum for $150 to John Thompson for merchandise returned by him

28 Sold merchandise on account to John Thompson, sale No 108, $45

31 Sold merchandise on account to Warren Wills, sale No 109, $975

Instructions (1) Record the above transactions in a sales journal similar to the one illustrated on page 129 and in a general journal

(2) Open the following accounts in the general ledger, using the page numbers indicated

Accounts Receivable	Page 5	Sales Returns and Allowances	Page 28
Sales	Page 27		

Also open the following accounts in the accounts receivable ledger George Hall Albert Smith John Thompson, Warren Wills

(3) Post from the two journals to the accounts receivable ledger and the general ledger

(4) Prepare a schedule of accounts receivable

Problem 8-B

This problem may be completed in the workbook in the space provided for Problem 2, Chapter VIII

During December of the current year the Spear Mercantile Co completed the following transactions The terms of all sales were 2/10 eom

Dec 1 Sold merchandise on account to ABC Construction Co, Kansas City, sale No 705, $580

3 Sold merchandise on account to Miller Manufacturing Co, Chicago, sale No 706 $760

5 Issued credit memorandum No 37 for $140 to ABC Construction Co for merchandise returned by it

7. Sold merchandise on account to Fowler & Jones, Denver, sale No 707, $2,500

12 Sold merchandise on account to Towle Industries, Los Angeles, sale No 708, $1,250

15 Issued credit memorandum No 38 for $100 to Miller Manufacturing Co for merchandise returned by it

16 Sold merchandise on account to ABC Construction Co, sale No 709, $1,500

19 Sold merchandise on account to J. W. Keene, New York, sale No 710, $895

Dec. 21. Issued credit memorandum No. 39 for $125 to Towle Industries for merchandise returned by them.

21. Sold merchandise on account to Atlas Corporation, Baltimore, sale No. 711, $3,055.

25. Sold merchandise on account to J. W. Keene, sale No. 712, $2,890.

26. Sold merchandise on account to Brown, Inc., Jacksonville, sale No. 713, $695.

29. Issued credit memorandum No. 40 for $55 to Atlas Corporation for merchandise returned by it.

Instructions: (1) Record the above transactions in a sales journal and a sales returns and allowances journal.

(2) Open the following accounts in the general ledger, using the page numbers indicated:

Accounts Receivable........ Page 5	Sales Returns and Allowances................. Page 29
Sales.................... Page 28	

Also open the following accounts in the accounts receivable ledger: ABC Construction Co.; Atlas Corporation; Brown, Inc.; Fowler and Jones; J. W. Keene; Miller Manufacturing Co.: Towle Industries.

(3) Post from the two journals to the accounts receivable ledger and the general ledger.

(4) Prepare a schedule of accounts receivable.

CHAPTER 9

Problem 9-A

This problem may be completed in the workbook in the space provided for Problem 8, Chapter IX.

In this problem you are to record and post the transactions of Arthur Godfrey, who began business on August 1 of the current year.

Instructions: (1) Open the following accounts in the general ledger, using the page numbers indicated:

Cash.................... Page 1	Sales Returns and Allowances.................. Page 12
Accounts Receivable...... Page 2	Purchases................ Page 13
Store Equipment.......... Page 3	Purchases Returns and Allowances............. Page 14
Office Equipment......... Page 4	Sales Salaries............. Page 15
Store Supplies........... Page 5	Office Salaries............ Page 16
Office Supplies........... Page 6	Misc. General Expense..... Page 17
Prepaid Rent............. Page 7	Purchases Discount........ Page 18
Accounts Payable......... Page 8	Sales Discount........... Page 19
Arthur Godfrey, Capital... Page 9	
Arthur Godfrey, Personal... Page 10	
Sales.................... Page 11	

(2) Open the following accounts in the accounts receivable ledger: Janet Dairs; Bruce Jackson; Peter Lawson; John Wylie.

(3) Open the following accounts in the accounts payable ledger Walter Crockett Kelly Corporation Paul Lawrence, William Snyder, Anthony Tyler, Willett Inc

(4) Record the transactions in a purchases journal similar to the one illustrated on pages 122 and 123 a purchases returns and allowances journal page 120 a sales journal page 129 a sales returns and allowances journal, page 135, a cash receipts journal page 140 and a cash payments journal page 145 Number the invoices for purchases on account the invoices for sales on account and the credit memorandums issued beginning with 1

Aug 1 Invested $9 000 cash
1 Paid rent for two months $600
1 Sold merchandise on account to Janet Dairs, Baltimore $1 000 The terms of all sales on account are 1 10 n 30
2 Purchased merchandise on account from Anthony Tyler Chicago $3 400 invoice dated Aug 1 terms 1 10, n 30
4 Purchased merchandise for cash $500
5 Purchased store supplies on account from Kelly Corporation New York City $51 invoice dated Aug 5, terms net 30 days
5 Received credit from Anthony Tyler for merchandise returned to him $150

Post from all journals to the accounts receivable ledger and the accounts payable ledger

8 Received $990 from Janet Dairs for invoice of Aug 1 less discount.
8 Sold merchandise on account to Bruce Jackson Kansas City, $700
10 Purchased merchandise on account from William Snyder, Detroit, $3 200 invoice dated Aug 9 terms 2 10 n 30
10 Cash sales for Aug 1 10 $1 650
10 Sent a check to Anthony Tyler in payment of invoice of Aug 1 less the return of Aug 5 and less discount (Note that the amount of the return must be subtracted from the face of the invoice before the discount is calculated)
11 Purchased office equipment on account from Willett Inc San Francisco $1 500 invoice dated Aug 10 terms net 60 days
13 Received credit from William Snyder for merchandise returned to him $120
13 Sold merchandise on account to John Wylie Denver, $550
13 Purchased office supplies on account from Willett Inc, $145, invoice dated Aug 13 terms, net 30 days

Post from all journals to the accounts receivable ledger and the accounts payable ledger

15 Paid semimonthly salaries as follows office salaries $170 sales salaries, $450
15 Purchased merchandise on account from Anthony Tyler $2 600, invoice dated Aug 13 terms 1/10, n/30
18 Allowed John Wylie credit for merchandise returned $70
18 Sent a check to William Snyder in payment of invoice of Aug 9 less credit for merchandise returned Aug 13 and less discount
19 Received $70 cash for merchandise that was purchased for cash and later returned
19 Received credit from Anthony Tyler for allowance on damaged merchandise, $60

Aug. 20. Sold merchandise on account to Bruce Jackson, $900.
20. Cash sales for Aug. 11–20, $1,550.

Post from all journals to the accounts receivable ledger and the accounts payable ledger.

22. Purchased store equipment on account from Walter Crockett, Houston, $1,300; invoice dated Aug. 20; terms, net 60 days.
23. Sent a check to Anthony Tyler in payment of invoice of Aug. 13 less allowance received on Aug. 19 and less discount.
25. Allowed Bruce Jackson credit for damaged merchandise, $40.
26. Purchased store supplies on account from Kelly Corporation, $70; invoice dated Aug. 26; terms, net 30 days.
27. Sold merchandise on account to Peter Lawson, Miami Beach, $1,360.

Post from all journals to the accounts receivable ledger and the accounts payable ledger.

29. Received $700 from Bruce Jackson in payment of invoice of Aug. 8.
29. Paid utility bills, $50.
29. Purchased office supplies on account from Paul Lawrence, Cleveland, $80; invoice dated Aug. 29; terms, net 30 days.
30. Sent a check to Kelly Corporation in payment of invoice of Aug. 5.
30. Received $851.40 from Bruce Jackson for invoice of Aug. 20 less allowance granted on Aug. 25 and less discount.
31. Paid semimonthly salaries as follows: office salaries, $170; sales salaries, $450.
31. Withdrew $400 for personal use.
31. Cash sales for Aug. 21–31, $1,500.

Instructions: (5) Post from the six journals to the accounts receivable ledger, the accounts payable ledger, and the general ledger.

(6) Prepare a trial balance as of August 31.

(7) Prepare a schedule of accounts receivable and a schedule of accounts payable.

Problem 9-B

This problem may be completed in the workbook in the space provided for Problem 4, Chapter IX.

Ralph Clark's bank statement for June showed a balance of $1,110.25 on June 30. His checkbook on that date showed a balance of $821.46.

On comparing the canceled checks with his check stubs he found that the following checks had not been returned by the bank: No. 213, $49.75; No. 215, $25; No. 218, $130.50; No. 219, $90.89. He also discovered that one of the canceled checks, No. 208, for $32.50, had been recorded on the checkbook stub as $52.50. A deposit of $221.50 on June 15 had not been recorded in the checkbook. A service charge of $1.35 and a counter check for $50 had not been recorded in the checkbook. The checkbook record included a deposit of $197.50, mailed to the bank on June 30, which did not appear on the bank statement.

Instructions: Prepare a reconciliation of the bank statement.

CHAPTER 10

Problem 10 A

This problem may be completed in the workbook in the space provided for Problem 2 Chapter X

The account balances in the ledger of Henry C Abbott on June 30, the end of the fiscal year were as follows

Cash	$ 6 100	Sales Returns and Allow	$ 5 000
Accounts Receivable	14 600	Purchases	126 000
Merchandise Inventory	15 000	*Freight In*	4 000
Equipment	5 000	Sales Salaries	11 750
Store Supplies	900	Advertising	4 100
Office Supplies	500	Misc Selling Expense	3 500
Prepaid Insurance	900	Office Salaries	2 950
Accounts Payable	10 100	Rent Expense	1 800
Henry C Abbott Capital	28 500	Misc General Expense	2 000
Henry C Abbott Personal (dr)	1 200	Purchases Discount	2 400
Sales	165 000	Sales Discount	700

The data for adjustments at the end of the year are

Merchandise inventory $25 000
Supplies inventories
  Store supplies $300
  Office supplies $100
Prepaid insurance expired $650
Prepaid advertising $500
Accrued salaries
  Sales salaries $250
  Office salaries $50

Instructions (1) Prepare an eight-column work sheet for the yearly fiscal period

(2) Prepare a classified profit and loss statement and a classified balance sheet

(3) Record the adjusting entries in a general journal

(4) Record the reversing entries as of the beginning of the new fiscal period

Problem 10 B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter X

The accounts and their balances in the ledger of Robert Mitchell at December 31 of the current year were as follows

Cash	$ 10 000	Building	$10 000
Accounts Receivable	30 000	Land	2 500
Merchandise Inventory	40 000	Store Supplies	600
Store Equipment	5 000	Office Supplies	440
Office Equipment	1 500	Prepaid Insurance	965

Accounts Payable	$ 28,000	Store Supplies Used	—
Salaries Payable	—	Insurance Expense on Mdse.	—
Taxes Payable	—	Insurance Expense on Store Equipment	—
Mortgage Payable	8,000	Misc. Selling Expense	$ 150
Robert Mitchell, Capital	62,210	Office Salaries	8,900
Robert Mitchell, Personal (dr.)	3,800	Taxes	130
Profit & Loss Summary	—	Office Supplies Used	—
Sales	182,500	Insurance Expense on Office Equipment	—
Sales Returns & Allowances	2,500	Insurance Expense on Building	—
Purchases	146,250	Misc. General Expense	775
Freight In	6,000	Purchases Discount	2,000
Purchases Ret. and Allow.	1,250	Sales Discount	1,000
Sales Salaries	9,200		
Advertising	4,250		

The data for adjustments on December 31 were as follows:

Merchandise inventory		$56,000
Inventories of supplies:		
Store supplies		230
Office supplies		170
Prepaid insurance expired:		
On merchandise	$180	
On store equipment	50	
On office equipment	15	
On building	120	365
Salaries payable:		
Sales salaries	$800	
Office salaries	700	1,500
Taxes payable		90

Instructions: (1) Open an account in the ledger for each account listed. Enter the balances in the appropriate accounts under date of December 31.

(2) Prepare an eight-column work sheet for the fiscal period.

(3) Prepare a profit and loss statement and a balance sheet.

(4) Record the adjusting entries in a general journal and post to the ledger accounts.

(5) Record the closing entries and post to the ledger accounts.

(6) Rule and balance the ledger accounts.

(7) Prepare a post-closing trial balance.

(8) Record the reversing entries as of January 1 and post to the ledger accounts.

CHAPTER 11

Problem 11-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XI.

The notes receivable and notes payable accounts of J. B. Rose are given below. Assume that each unpaid note is paid on the date it is due.

NOTES RECEIVABLE

19--			19--		
May 7	5/3 —60 day 6%	1,800	June 12		900
15	5 13—30 day 8%	900			
June 5	6 1 —2 mo. 7%	1,350			
17	6/16—30 day 6%	1,500			
July 3	7 6 —30 day 6%	750			
23	7 15—60 day 8%	2,160			

NOTES PAYABLE

19--			19-		
June 14		1,500	May 1	5 1 —2 mo. 6%	3,000
			15	5 15—30 day 6%	1,500
			June 9	6 7 —60 day 7%	2,250
			20	6 16—30 day 8%	900
			July 9	7 9 —60 day 6%	2,700
			21	7 21—30 day 6%	750

Instructions: Record the entries required by these receipts and payments in a cash receipts journal and a cash payments journal with columns similar to those illustrated in this chapter.

Problem 11-B

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XI

John A Nelson completed the transactions listed below, among others, during a three-month fiscal period:

Apr. 1 Received from J E. Moore, a customer, a 60-day non-interest-bearing note for $3,000, dated April 1
15 Discounted at the Central Trust Bank at 6% his own 90-day note for $1,000
18. Discounted at the Central Trust Bank at 6% the note received from J E. Moore, dated April 1.
20 Gave A E Rogers, a creditor, a 60-day, 6% note for $2,000.
May 2. Discounted at the Central Trust Bank at 6% a 6% note for $4,000 received from D Engel on March 1, due in six months.
11. Received from R. A Clark, a customer, a 20-day, 4% note for $6,000, dated May 9
31. Received payment from R. A. Clark for the note of May 11.
June 2. Notified by the Central Trust Bank of the dishonor of the note of April 1 signed by J. E Moore. Paid the bank the face value of the note and a $5 protest fee.
18. Paid amount owed on note issued to A. E. Rogers dated April 20.
24. Received payment from J. E. Moore for the note of April 1 including interest of $12 from the date of maturity.

Instructions: Record the transactions in a cash receipts journal, a cash payments journal, and a general journal like the ones in Chapter XI. In discounting notes, use the actual number of days to maturity.

CHAPTER 12

Problem 12-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XII.

The balances in the income and expense accounts of Donald Bourn for the year ended December 31, before adjustments, are:

Sales	$88,000
Purchases	74,500
Sales Salaries	6,400
Misc. Selling Expense	560
Rent Expense	2,200
Office Salaries	2,400
Misc. General Expense	700
Interest Income	300

Adjusting entries based on the following information are required in order to determine the profit or loss for the year.

(a) Merchandise inventories: January 1, $11,500; December 31, $17,680.
(b) Office supplies used, $185.
(c) Insurance on store equipment and merchandise, amount expired, $120.
(d) Three months' rent, $900, paid December 1 and charged to Prepaid Rent.
(e) Additional sales salaries, $300; office salaries, $200.
(f) Taxes payable, $75.
(g) Interest for 15 days at 8 per cent on a customer's note for $6,000.

Instructions: (1) Prepare adjusting journal entries.

(2) Open a profit and loss summary account and income and expense accounts. In addition to those listed above with December 31 balances before adjustments, accounts will be needed for Expired Insurance on Store Equipment and Merchandise; Tax Expense; and Office Supplies Used. Arrange these accounts in the proper order.

(3) Record the December 31 balances in the proper accounts and post to the profit and loss summary account and to the income and expense accounts.

(4) Prepare a classified profit and loss statement.

Problem 12-B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter XII.

The balances in the ledger accounts of N. Cole for the month ended May 31, 1950, before adjustments are:

Cash	$ 6,720	Sales	$30 000
Notes Receivable	1 600	Purchases	15 400
Merchandise Inventory	25 000	Freight In	600
Store Supplies	649	Selling Expenses (Control)	3 830
Prepaid Insurance	2 500	General Expenses (Control)	470
Prepaid Rent	3 000	Interest Income	29
Notes Payable	15 000	Interest Expense	60
N Cole Capital	15 000		

The data for adjustments are

(a) Merchandise inventory, May 31, $21,000
(b) Store supplies used, $340 (Selling Expenses)
(c) Insurance expired $60 (General Expenses)
(d) Three months' rent $3 000, paid May 1 and charged to Prepaid Rent (General Expenses)
(e) Additional sales salaries $500 (Selling Expenses)
(f) Interest for 20 days at 6 per cent on customer's note for $1 800
(g) Interest at 6 per cent for 30 days on a note payable of $15 000

Instructions (1) Prepare an 8-column work sheet for the month ended May 31 1950

(2) Prepare a profit and loss statement and a balance sheet.

(3) Record adjusting closing, and reversing entries

CHAPTER 13

Problem 13-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XIII

The following transactions were selected from those completed by Lee Robertson

Dec 31 1948	Recorded the provision for loss from bad debts at 1% of sales of $300 000
May 18 1949	Wrote off the account of Mark Allen, $1,500, as uncollectible
Sept 1, 1949	David Burke paid 60 cents on the dollar on his $500 account. The balance of the account was written off as uncollectible
Dec 31, 1949	Recorded the provision for loss from bad debts at ½ of 1% of sales of $350 000
Mar 1 1950	Wrote off the account of Paul Derricks, $2,000, as uncollectible
Aug 16 1950	Received $200 from David Burke in payment of his account written off on September 1, 1949
Dec 31, 1950	Recorded the provision for loss from bad debts at ½ of 1% of sales of $525 000

Instructions (1) Record the foregoing transactions in general journal form

(2) Open a reserve for bad debts account Post the journal entries to the account, and rule and balance the account at the end of 1949 and 1950

Problem 13-B

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XIII.

The account balances in the ledger of Harold Ruggles on December 31, the end of the fiscal year, were as follows:

Cash	$ 17,100	Sales Returns and Allow.	$ 6,000
Accounts Receivable	45,000	Purchases	375,000
Reserve for Bad Debts	2,100	Freight In	9,000
Merchandise Inventory	48,000	Sales Salaries	36,000
Furniture and Fixtures	18,000	Advertising	12,000
Store Supplies	3,600	Misc. Selling Expense	10,800
Office Supplies	1,800	Office Salaries	9,000
Prepaid Insurance	2,400	Rent	5,400
Notes Payable	30,000	Misc. General Expense	6,300
Accounts Payable	24,300	Purchases Discount	7,500
H. Ruggles, Capital	61,800	Interest Income	600
H. Ruggles, Personal (dr.)	3,000	Sales Discount	2,400
Sales	486,000	Interest Expense	1,500

The data for adjustments are:

Bad debts, ½ of 1% of gross sales		Office supplies inventory	$ 300
Merchandise inventory	$72,000	Expired insurance	1,800
Store supplies inventory	900	Prepaid advertising	1,500
		Interest payable	300

Instructions: (1) Prepare an 8-column work sheet for the current year.

(2) Prepare a profit and loss statement and a balance sheet.

(3) Record the adjusting entries.

CHAPTER 14

Problem 14-A

This problem may be completed in the workbook in the space provided for Problem 3, Chapter XIV.

Victor Reynolds operates a frozen-food business. During the years 1949–51 the following transactions relating to his refrigerator display cabinets took place:

Apr. 1, 1949. Purchased one Alaska Cabinet for cash, $7,200. The estimated life was 6 years.

July 1, 1949. Purchased a Zero Case for cash, $4,000. The estimated life was 5 years.

Dec. 31, 1949. The adjusting entry was made to record depreciation for the year.

July 1, 1950. The Alaska Cabinet was traded in on a new Cold-Air Cabinet. The list price of the new cabinet was $8,400 with $4,000 allowed on the old cabinet and the balance paid in cash. The new cabinet has an estimated life of 7 years. (Record the transaction as if the cabinet had been sold for the trade-in value.)

Dec 31 1950 The adjusting entry was made to record depreciation for the year

July 1 1951 The Zero Case was sold for $2 400 cash and a new Frozen Air Case was purchased for cash $6 000 The new cabinet was estimated to have a 6 year life

Dec 31 1951 The adjusting entry was made to record depreciation for the year

Instructions (1) Journalize the foregoing transactions

(2) Open general ledger controlling accounts for Refrigerator Display Cabinets and Reserve for Depreciation of Refrigerator Display Cabinets. Post to these two accounts

(3) Set up a separate account in the subsidiary ledger for each cabinet. After each transaction record all the necessary details in the subsidiary ledger accounts

(4) Reconcile the balances in the two control accounts with the details found in the subsidiary cabinet ledger as of December 31 1951

(5) Record the transaction of July 1 1950 according to the method required for income tax purposes but do not post to the accounts

Problem 14 B

This problem may be completed in the workbook in the space provided for Problem 4 Chapter XIV

The account balances in the ledger of Max Samuel on December 31, the end of the fiscal year were as follows

Cash	$21 000	Max Samuel Capital	$100 000
Accounts Receivable	74 480	Max Samuel Personal (dr)	12 000
Reserve for Bad Debts	1 200	Sales	400 000
Merchandise Inventory	60 000	Purchases	340 000
Store Fixtures	40 000	Freight In	20 000
Reserve for Depreciation of Store Fixtures	8 000	Sales Salaries	12 000
Office Fixtures	8 000	Advertising Expense	8 000
Reserve for Depreciation of Office Fixtures	3 200	Misc Selling Expense	4 000
Store Supplies	8 000	Office Salaries	6 000
Office Supplies	3 200	Rent Expense	7 200
Prepaid Insurance	4 800	Misc General Expense	6 800
Notes Payable	48 000	Purchases Discount	6 800
Accounts Payable	72 800	Sales Discount	1 440
		Interest Expense	3 080

The data for adjustments are

Bad Debts an additional 1/2 of 1% of sales	Store supplies inventory $1 600
Merchandise inventory, $100 000	Office supplies inventory $800
Depreciation of store fixtures 10%	Expired insurance $3 600
Depreciation of office fixtures 20%	Interest accrued on notes payable, $280

Instructions (1) Prepare an 8-column work sheet

(2) Prepare a profit and loss statement and a balance sheet.

(3) Record the adjusting closing and reversing entries

CHAPTER 15

Problem 15-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XV.

The following transactions involving petty cash were completed by the Jefferson Equipment Company during the month of August:

Aug. 1. Drew check No. 224 for $20 to establish a petty cash fund.
4. Paid $3.50 to have sales letters mimeographed.
6. Paid the charges on a telegram received, 90 cents.
8. Paid $4.50 for twine for use in the store.
10. Gave 50 cents to a boy for delivering a package to a customer.
15. Gave Leon Wiedemer $4.50 for painting an advertising poster.
23. Paid 48 cents for having letters registered.
29. Paid $3.75 for repairs on a typewriter.
31. Drew check No. 256 to replenish the petty cash fund.

Instructions: (1) Record the check to establish the petty cash fund in a check register. Enter the amount of the fund in a petty cash book having the same form and columns as the book illustrated on page 259 of the text, and then record the payments in this book.

(2) Total and rule the columns of the petty cash book and bring down the balance. Record the replenishing check in the check register, the general journal, and the petty cash book.

Problem 15-B

This problem may be completed in the workbook in the space provided for Problem 5, Chapter XV.

D. Harrington's accounting records include a check register, a petty cash book, and an insurance policy register similar to those illustrated in the text, and a two-column general journal.

The following transactions were among those completed in August, 1950:

Aug. 1. Issued check No. 722 to establish a petty cash fund, $50.
1. Issued check No. 723 to Price, Inc. for August rent, $500.
2. Issued check No. 724 in the amount of $240 to the Bedford Insurance Agency for Policy No. S6549 with the Atlas Indemnity Co. The policy, dated August 1, 1950, and effective for one year, is a surety bond on Harrington's employees and gives him protection of $10,000.
4. Issued check No. 725 to Bedford Insurance Agency for two insurance policies. One policy, No. M9S364, is with the Aetna Fire Insurance Co., covers merchandise for $140,000, has a premium of $1,440, and is effective for three years from August 1, 1950. The second policy, No. F206S, is with the same company, covers equipment for $40,000, has a premium of $192, and is effective for one year from August 1, 1950.
6. Paid $10 out of petty cash for stamps (Office Supplies).
8. Issued check No. 726 for $10,000 in payment of a note payable to the City National Bank.

Aug 10 Paid from petty cash express charges of $5 on a shipment of merchandise received (Freight In)
12 Paid $3 from petty cash for a telegram.
14 Spoiled check No 727
14 Issued check No 728 to Rivers Manufacturing Co for invoice of $6 000 less 2% discount.
17 Paid $1 from petty cash for messenger service.
19 Paid $8 from petty cash for flowers used during the month in counter displays (Miscellaneous Selling Expense)
24 Issued check No 729 to Sellers Inc. for invoice of $8 000 less 1% discount.
26 Paid $5 from petty cash for repairs to cash register (Miscellaneous Selling Expense)
31 Spoiled check No 730
31 Issued check No 731 for salaries and wages of $1 650
31 Issued check No 732 to replenish the petty cash fund
31 Issued check No 733 to D Harrington for personal use $450

Instructions (1) Record the foregoing transactions For petty cash replenishment rule and foot the petty cash book and prepare a general journal entry for the expense distribution

(2) Enter and distribute insurance policy premiums for the balance of the year Prepare a journal entry to adjust prepaid insurance on August 31

(3) Rule and foot the check register

(4) The bank statement for August shows an August 31 bank balance of $16 800 With the exception of Nos 729 and 733 all checks were returned with the statement The cash account has an August 31 balance of $8 430 Prepare a bank reconciliation.

CHAPTER 16

Problem 16-A

This problem may be completed in the workbook in the space provided for Problem 2 Chapter XVI

Norman Paul opened a retail grocery business on June 1 He will use the voucher system All bills are to be paid upon receipt of invoice or within the discount period The following transactions were selected from those completed during June

June 1 Issued check No 1 for $200 to Ralph, Inc. in payment of store rent for June (Number the vouchers beginning with 1)
1 Bought store equipment from Beckett Equipment Co., $3 000, terms 2/10 n 30
1 Issued check No 2 for $60 to the ABC Produce Co for fruits and vegetables
2. Issued check No 3 for $150 to H F Nelson for store supplies
2. Bought groceries from Acme Wholesale Grocery Co., $500, terms 2/10, n/30

June 8. Purchased office equipment from the Steele Co. $500; terms 4/10, n/30.
8. Issued check No. 4 for $120 to Brown, Inc. for fruits and vegetables.
8. Bought groceries from Lantin Corp., $518; terms 2/10, n/30.
9. Issued check No. 5 in payment of voucher No. 2.
10. Issued check No. 6 for $69 to the Office Supplies Corporation for office supplies.
10. Purchased groceries from the Anderson Co., $354; terms 2/10, n/30.
12. Issued check No. 7 in payment of voucher No. 5 and check No. 8 in payment of voucher No. 6.
13. Issued check No. 9 in payment of the semimonthly payroll as follows: Office Salaries, $40; Sales Salaries, $50.
15. Issued check No. 10 for $38 to ABC Produce Co. for fresh fruits and vegetables.
15. Purchased groceries from the Elite Canning Company, $635; terms 2/10, n/30.
18. Issued check No. 11 in payment of voucher No. 8.
20. Issued check No. 12 in payment of voucher No. 10.
22. Purchased fresh fruits and vegetables from the ABC Produce Co., $220; terms 2/10, n/30.
30. Issued check No. 13 in payment of the semimonthly payroll as follows: Office Salaries, $40; Sales Salaries, $50.
30. Issued checks as follows:
    No. 14, City Power and Gas Co., $20.
    No. 15, Valley Dairy for purchases during the month, $313.
    No. 16, Bell Telephone Co., $15.
30. Norman Paul withdrew by check No. 17 $250 for personal use.

Instructions: (1) Record the June transactions in a voucher register and a check register like the ones illustrated on pages 276, 277, and 279.

(2) Total and rule the voucher register and the check register.

(3) Post the totals of the vouchers payable columns to the vouchers payable control account. Prove the June 30 balance of this account by preparing a schedule of unpaid vouchers as shown by the voucher register.

CHAPTER 17

Problem 17-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XVII.

The Burbank Company employs nine people. Two receive straight weekly salaries and seven are employed on an hourly basis with time and a half for overtime. Regular time consists of a forty-hour week. The following table shows the employees, the classification of salaries, the hours worked, and the rate of pay for the week ended May 31:

No	Name	Salary Classification	Total Hours	Overtime Hours	Regular Hourly Rate	Weekly Rate
1	Albert Armer	Office				$120
2	Vincent Bogert	Office				150
3	Evelyn Dodd	Office	43	3	$1 80	
4	Bill Freedman	Sales	40		1 60	
5	Jerry Gollard	Sales	44	4	1 60	
6	Robert Schiller	Sales	42	2	1 20	
7	Philip Sharp	Office	40		1 80	
8	George Thomas	Sales	43	3	1 80	
9	John Webb	Sales	44	4	1 80	

The employer was required to make the following deductions from the May 31 payroll

	Income Tax Withholding	Employees' Bond Fund	Union Dues
Albert Armer	$13 20	$10 00	
Vincent Bogert	15 00	10 00	
Evelyn Dodd	8 40	4 00	
Bill Freedman	5 20	6 00	$1 00
Jerry Gollard	6 80	4 00	1 00
Robert Schiller	2 20	2 00	1 00
Philip Sharp	10 60	3 00	
George Thomas	8 40	4 00	1 00
John Webb	5 00	2 00	1 00

Federal old age insurance tax 1%
Stato unemployment tax 1%

In addition the employer was taxed at the following rates on the total of the payroll

Federal old age insurance tax 1%
Federal unemployment tax 0 3%
State unemployment tax 2 7%

Instructions (1) Using a payroll record like the one on pages 294 and 295 enter the payroll data for the week

(2) Make the journal entry to record the payroll and the deductions

(3) Checks numbered 621 to 629 were issued in payment of the salaries and wages for the week Record these checks in a check register like the one on page 297

(4) Make a journal entry to record the employer's payroll tax expenses and liabilities

Problem 17-B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter XVII

The Blair Cowan Co employs ten people Two receive straight weekly salaries and eight are employed on an hourly basis with time and

a half for overtime. Regular time consists of a forty-hour week. The following table shows the employees, the classification of salaries, the hours worked, and the rate of pay for the week ended August 31:

No.	Name	Salary Classification	Total Hours	Overtime Hours	Regular Hourly Rate	Weekly Rate
1	Elizabeth Blair	Officer				$165
2	William Cowan	Officer				150
3	Charles Elliott	Sales	40		$2.50	
4	Dorothy Fisher	Office	46	6	1.50	
5	Geraldine Gould	Sales	44	4	2.00	
6	Virginia Harrison	Office	40		2.00	
7	Helen Morrison	Office	45	5	1.50	
8	Oscar Nelson	Sales	48	8	1.50	
9	Louise Peterson	Sales	40		2.00	
10	Walter Smith	Sales	40		2.00	

The employer was required to make the following deductions from the August 31 payroll:

	Income Tax Withholding	Employees Bond Fund	Union Dues
Elizabeth Blair	$27.90	$15.00	
William Cowan	24.60	15.00	
Charles Elliott	9.00	7.50	$1.50
Dorothy Fisher	11.70	3.00	
Geraldine Gould	13.50	11.25	1.50
Virginia Harrison	7.80	6.00	
Helen Morrison	11.10	3.00	
Oscar Nelson	8.70	7.50	1.50
Louise Peterson	13.50	4.50	1.50
Walter Smith	10.20	3.00	1.50

Federal old-age insurance tax	1%
State unemployment tax	1%

The two officers have earned in excess of $3,000 before the current week.

In addition the employer was taxed at the following rates on the total of the payroll:

Federal unemployment tax	0.3%
Federal old-age insurance tax	1%
State unemployment tax	2.7%

Instructions: (1) Using a payroll record like the one on pages 294 and 295, enter the payroll data for the week.

(2) Make the journal entry to record the payroll and the deductions.

(3) Checks numbered 361 to 370 were issued in payment of the wages and salaries for the week. Record these checks in a check register like the one on page 297.

(4) Make a journal entry to record the employer's payroll tax expenses and liabilities.

Instructions: (1) Record in general journal form all of the entries pertaining to property taxes for the first six months of the year. Include the closing entries.

(2) What items pertaining to property taxes would appear in the balance sheet of January 31? March 31? April 30? December 31?

CHAPTER 19

Problem 19-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XIX.

The capital accounts of Charles Blair and George Murphy on December 31, before the balance of the profit and loss summary account was closed, were as follows:

CHARLES BLAIR, CAPITAL

19--		19--		
Mar. 1	2,000	Jan. 2	Balance √	7,500
		Sept. 1		500

GEORGE MURPHY, CAPITAL

		19--		
		Jan. 2	Balance √	15,000
		July 1		3,000

Instructions: (1) Assuming a profit of $3,000 for the year, give the journal entries required to transfer the balance in the profit and loss summary account to the partners' personal accounts if the profit is to be distributed on any one of the following bases: (On a separate sheet of paper show for each journal entry the procedure in determining the respective amounts.)

(a) According to the original investments.
(b) According to the average capital.
(c) Interest of 6 per cent is to be allowed on the average capital, and the balance is to be distributed as follows: Blair, 35%; Murphy, 65%.
(d) Interest of 6 per cent is to be allowed on the average capital, annual salaries of $600 and $1,000 are to be allowed Blair and Murphy respectively, and the balance is to be divided equally.

(2) Prepare a summary comparing the partners' shares in the profit under the four conditions stated in Instruction 1.

Problem 19-B

This problem may be completed in the workbook on the forms provided for it following Problem 3, Chapter XIX.

Louis Berger and William Levitt formed a partnership on January 1, 19--. The articles of copartnership provided that monthly salaries

CHAPTER 20

Problem 20-A

This problem may be completed in the workbook in the space provided for Problem 3, Chapter XX

A. B. AND C.
BALANCE SHEET
APRIL 30, 19-

ASSETS		LIABILITIES & PROPRIETORSHIP	
Cash	$ 2,500	Liabilities	$11,000
Other Assets	60,000	A., Capital	20,000
		B., Capital	16,250
		C., Capital	15,250
Total Assets	$62,500	Total Liab. and Prop.	$62,500

A, B, and C share profits in the ratio of 5:3:2 respectively.

Instructions: Prepare general journal entries to record the liquidation under the following circumstances:

(1) If all of the other assets are sold for $22,500.

(2) If all of the other assets are sold for $20,000.

(3) If all of the other assets are sold for $15,000 and the estate of A., deceased, subsequently pays the amount owed to the partnership but not until after the first cash distribution.

(4) If all of the other assets are sold for $12,500 and it is definitely determined that collection from partners with debit balances is impossible.

Problem 20-B

This problem may be completed in the workbook in the space provided for Problem 4, Chapter XX.

The account balances on the post-closing trial balance of Black and White were as follows on December 31:

Cash	$1,250	
Accounts Receivable	2,500	
Merchandise Inventory	1,750	
Delivery Equipment	1,200	
Reserve for Depreciation of Delivery Equipment		$ 360
Office Equipment	1,800	
Reserve for Depreciation of Office Equipment		540
Building	7,500	
Reserve for Depreciation of Building		750
Land	900	
Notes Payable		1,450
Accounts Payable		1,150
Robert Black, Capital		8,600
Charles White, Capital		4,050

The profits and the losses (after provision for income tax) for a period of ten years are as follows:

	Irwin Corporation	Moran Corporation
1942	$ 1,000 loss	$ 2,000 loss
1943	3,000 loss	7,000 loss
1944	5,000 loss	1,000 profit
1945	19,000 profit	5,000 loss
1946	17,000 profit	47,000 profit
1947	15,000 profit	43,000 profit
1948	18,000 profit	39,000 profit
1949	20,000 profit	45,000 profit
1950	10,000 profit	32,000 profit
1951	6,000 profit	19,000 profit

Instructions: (1) Show the distribution of the profit or the loss for each corporation. Use columns with the following headings: Year; Income; To Preferred Stock; Balance Due on Preferred Stock; To Common Stock; To Surplus or Deficit; Balance of Surplus or Deficit. Indicate negative or minus items by encircling them.

(2) Total the two columns showing the amounts paid on preferred and common stock. What was the amount received per share on common and preferred stock for the ten-year period?

Problem 21-B

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XXI.

Jack Ferguson and George Bonchard, partners, wish to retire from active participation in their manufacturing business. They decide to form a corporation to take over the firm's assets. The balance sheet of the partnership is as follows:

FERGUSON AND BONCHARD
BALANCE SHEET
APRIL 1, 19--

Assets			Liabilities and Proprietorship	
Cash		$ 6,000	Notes Payable	$ 5,000
Notes Receivable		10,000	Accounts Payable	16,000
Accounts Receivable		27,000	Salaries Payable	750
Inventories		42,750		
Machinery	$40,000		Jack Ferguson, Capital	72,500
Less Reserve	22,000	18,000	George Bonchard, Capital	36,000
Buildings	$22,500			
Less Reserve	11,000	11,500		
Land		15,000		
Total Assets		$130,250	Total Liab. and Prop.	$130,250

The partners, together with James Pickford, who would like to join in the new enterprise, agree to the following plan:

(a) The corporation is to be known as the Pickford Corporation, and its authorized stock is to consist of 2,500 shares of common stock, par value $100.

(b) The partners are to withdraw all of the cash from the firm, each partner to receive an equal amount. All of the other assets are to be transferred to the corporation. The partners are to receive common stock at par value in payment for their interests in the partnership. In determining their interests, a reserve for bad debts of $1,000 is to be set up against accounts receivable, and the land is to be valued at $20,000.

(c) Pickford, who owns land that is desirable for expansion purposes, is to be given 100 shares of common stock upon transfer of his land to the corporation. Pickford also agrees to purchase 175 shares of common stock at par upon the organization of the corporation.

The Pickford Corporation is incorporated, and on April 1 the foregoing transactions take place.

Instructions: (1) Prepare the journal entries to record the withdrawal of cash, to revalue the assets as agreed, and to close the books of the partnership.

(2) Prepare the journal entries to record the opening of the books of the corporation.

(3) Prepare a balance sheet in report form for the corporation.

CHAPTER 22

Problem 22-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XXII.

The following is the trial balance of the Slavick Corporation one month after its organization:

SLAVICK CORPORATION
TRIAL BALANCE
MARCH 1, 1949

Cash	$132,000	
Subscriptions Receivable Preferred	22,500	
Preferred Stock ($100 par, 6%)		$ 30,000
Preferred Stock Subscribed		45,000
Common Stock ($100 par)		75,000
Premium on Preferred Stock		750
Premium on Common Stock		3,750
	$154,500	$154,500

The following transactions occurred during the balance of 1949:

(a) Acquired the going business of the Farmer Company. Issued 300 shares of common stock, with a par value of $100 a share, and 150 shares of preferred stock, with a par value of $100 a share, in exchange for the following assets: Machinery, $22,500; Buildings, $7,500; Land, $9,000; and Goodwill, $6,000.
(b) Received cash in payment of the balance of Subscriptions Receivable Preferred. Issued all preferred stock that had been subscribed for but not previously issued.
(c) Made a profit of $30,000 on the first year's operation (debit Cash for $33,000; credit Reserve for Depreciation of Machinery $2,250; Reserve for Depreciation of Buildings $750; and Profit and Loss Summary $30,000).
(d) Made provision for federal income tax payable of $9,000 and closed the balance of Profit and Loss Summary to Earned Surplus.
(e) Declared Preferred Dividend No. 1 of $6 a share and Common Dividend No. 1 of $8 a share.

The following transactions occurred in 1950:

(f) Paid income tax for 1949.
(g) Paid the dividends declared in (e).
(h) Received subscriptions for 150 shares of preferred stock at $108, 50% of the purchase price being paid in cash at the time of subscription.
(i) Purchased the going business of The Marshall Builders, for $150,000. Assets are valued as follows: Machinery, $75,000; Buildings, $22,500; Land, $37,500.
(j) Made a profit of $75,000 for 1950 (debit Cash $82,500; credit Reserve for Depreciation of Machinery $6,000, Reserve for Depreciation of Buildings $1,500 and Profit and Loss Summary $75,000).
(k) Made provision for federal income tax payable of $22,500 and closed the balance of Profit and Loss Summary to Earned Surplus.
(l) Declared Preferred Dividend No. 2 of $6 a share and Common Dividend No. 2 of $10 a share.

Instructions: (1) Record the March 1 balances and the above transactions directly in "T" accounts. The accounts required are: Cash; Subscriptions Receivable Preferred; Machinery; Reserve for Depreciation of Machinery; Buildings; Reserve for Depreciation of Buildings; Land; Goodwill; Federal Income Tax Payable; Preferred Dividend Payable No. 1; Preferred Dividend Payable No. 2; Common Dividend Payable No. 1; Common Dividend Payable No. 2; Preferred Stock; Preferred Stock Subscribed; Common Stock; Premium on Preferred Stock; Premium on Common Stock; Earned Surplus; Profit and Loss Summary.

(2) Take a trial balance as of December 31, 1950.

(3) Prepare a balance sheet as of December 31, 1950.

Problem 22-B

This problem may be completed in the workbook in the space provided for Problem 8, Chapter XXII.

The Hammond Company received its charter of incorporation on December 31, 1947. Its authorized capitalization was as follows: 2,000

shares of 6% cumulative preferred stock $50 par, and 800 shares of common stock, par value of $100 During its first three years of operation the following transactions occurred One fifth of the organization expense was charged against income on December 31 of each year, beginning in 1948

1948

Jan 2 Received cash for 500 shares of preferred stock and 400 shares of common stock at par Issued the stock

15 Received subscriptions for 500 shares of preferred stock and 200 shares of common stock at par

15 Invested $45 000 in other assets

Feb 15 Received half payment for the preferred stock and common stock subscriptions of January 15

Mar 31 Received in cash half of the balance due on the common stock subscribed Received in cash the complete balance due on the preferred stock subscribed and issued the preferred stock

Apr 30 Received in cash the balance due on the common stock subscribed Issued the stock

The attorney who secured the charter and performed other legal services in connection with organization rendered his bill for $3 000 He was paid in cash

Dec 31 Net loss for the first year s operations was $10 000 (debit Profit and Loss Summary credit Cash) Closed Profit and Loss Summary to Earned Surplus

1949

Feb 15 Sold 160 shares of common stock at a discount of $7 50 a share

Mar 21 Invested $35 000 in other assets

Dec 31 Net profit for 1949 was $32 500 (debit Cash credit Profit and Loss Summary) Made provision for federal income tax liability of $11 400 and closed the balance of Profit and Loss Summary to Earned Surplus

1950

Jan 7 Sold 40 shares of common stock for cash at par Sold 1 000 shares of preferred stock for cash at $53

Mar 15 Paid income tax for 1949

Dec 31 Made a net profit of $25 000 (debit Cash credit Profit and Loss Summary) Made provision for federal income tax liability of $9 500 and closed the balance of Profit and Loss Summary to Earned Surplus

Instructions (1) Record the transactions directly in T accounts The accounts required are Cash Subscriptions Receivable Preferred Subscriptions Receivable Common Other Assets Organization Expense Federal Income Tax Payable Preferred Stock Preferred Stock Subscribed Common Stock Common Stock Subscribed Premium on Preferred Stock Discount on Common Stock Earned Surplus Profit and Loss Summary

(2) Take a trial balance as of December 31, 1950

(3) Prepare a balance sheet as of December 31, 1950

(4) If dividends were declared for the first time at the end of 1950 and if the entire balance of Earned Surplus was distributed as dividends how much would the preferred stockholders receive? the common stockholders?

CHAPTER 23

Problem 23-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XXIII.

Empire Incorporated was organized by Stanley Dawson, Robert Towne, and Donald Wilson on May 1, 19--, with authorized capital stock of 20,000 shares of common, $50 par, and 10,000 shares of preferred, $100 par. The transactions for the first month were as follows:

May 1. Issued 3,000 shares of common stock to Robert Towne in exchange for land valued at $25,000 and a building valued at $125,000.
1. Issued 1,000 shares of common stock to Donald Wilson in exchange for land valued at $50,000.
1. Sold to Stanley Dawson for cash 2,000 shares of common stock at par.
2. Received subscriptions for 2,500 shares of common stock at par and cash for 40% of the subscription price. Subscriptions were also received for 1,750 shares of preferred stock at par and cash for 50% of the subscription price.
3. Received a donation from the organizers of 1,200 shares of common stock.
5. Issued 3,500 shares of common stock to Richard Tyler in exchange for his going business, which included: notes receivable, $10,000; accounts receivable $24,000; merchandise inventory, $95,000; office equipment, $20,000; store equipment $40,000; notes payable, $25,000; and accounts payable, $16,000.
7. Received subscriptions for 2,250 shares of preferred stock at $102 and cash for 50% of the subscription price.
12. Received payments on stock subscribed for on May 2 as follows: 30% of the subscription price on the common stock; 25% of the subscription price on the preferred stock.
15. Sold 800 shares of treasury stock at $55.
17. Received 25% of the subscription price on the preferred stock subscribed for on May 7.
20. Purchased for $175,000 cash the assets of a business formerly operated by John Allen. The value of the assets was: Merchandise inventory, $42,500; Store equipment, $25,000; Building, $95,000; and Land, $12,500.
27. Received the balance due on the common and preferred stock subscribed for on May 2.

Instructions: (1) Record the foregoing transactions in "T" accounts.
(2) Prepare a balance sheet as of May 31.

Problem 23-B

This problem may be completed in the workbook in the special space provided for it following Problem 3, Chapter XXIII.

Evans, Inc. was formed July 1, 1949. It is authorized to issue 4,000 shares of 6% preferred stock, par $50, and 20,000 shares of no-par common stock. During the first year the following transactions occurred:

(a) Received subscriptions to 2,000 shares of 7% preferred stock at $55 (par value $50).
(b) Exchanged 4,000 shares of common stock, par value $25, for the following assets: Machinery, $60,000; Building, $35,000; Land, $5,000.
(c) Received cash in payment of the preferred stock subscriptions and issued the stock.
(d) Made a net profit for the year of $30,000. (Debit Buildings. Credit Profit and Loss Summary.)
(e) Recorded provision for federal income tax of 30% of net profit. Closed Profit and Loss Summary to Earned Surplus Unappropriated.
(f) Declared annual preferred dividend (No. 1) and a $2 a share common dividend (No. 1).
(g) Appropriated a reserve for plant additions, $10,000.
(h) Sold $100,000 worth of 10-year, 6% bonds for $110,000.
(i) Paid $85,000 for new machinery; $40,000 for a new building.
(j) Paid common and preferred dividends declared in (f) and the income tax liability.
(k) Paid annual interest on bonds.
(l) Made a net operating profit of $80,000. (Debit Merchandise Inventory, $35,000; Machinery, $15,000; Land, $30,000. Credit Profit and Loss Summary.) Closed Bond Interest Expense to Profit and Loss Summary.
(m) Recorded provision for federal income tax of 40% of net profit. Closed Profit and Loss Summary to Earned Surplus Unappropriated.
(n) Declared annual preferred dividend (No. 2).
(o) Declared a stock dividend of 25% on common stock and issued the stock.
(p) Increased the reserve for plant additions by $10,000.
(q) Paid preferred dividends declared in (n) and the income tax liability.
(r) Paid annual interest on bonds.
(s) Made a net operating profit of $105,000. (Debit Merchandise Inventory, $50,000; Machinery, $20,000; Buildings, $35,000. Credit Profit and Loss Summary.) Closed Bond Interest Expense to Profit and Loss Summary.
(t) Recorded provision for federal income tax of 45% of net profit. Closed Profit and Loss Summary.
(u) Declared annual preferred dividend (No. 3) and a $2.50 a share dividend on common (No. 2).
(v) Increased the reserve for plant additions by $10,000.

Instructions: (1) Record the transactions directly in "T" accounts. The accounts required are: Cash; Subscriptions Receivable Preferred; Merchandise Inventory; Machinery; Buildings; Land; Federal Income Tax Payable; Preferred Dividend Payable No. 1; Preferred Dividend Payable No. 2; Preferred Dividend Payable No. 3; Common Stock Dividend Payable; Common Dividend Payable No. 1; Common Dividend Payable No. 2; Bonds Payable; Premium on Bonds Payable; Preferred Stock; Preferred Stock Subscribed; Common Stock; Premium on Preferred Stock; Reserve for Plant Additions; Earned Surplus Unappropriated; Profit and Loss Summary; Bond Interest Expense.

(2) Prepare a trial balance as of December 31 after the transactions have been recorded.

CHAPTER 25

Problem 25-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XXV.

The Slauson Supply Co. has four sales departments: A, B, C, and D, and three service departments: X, Y, and Z. The following pertinent information is taken from the books:

	A	B	C	D
Sales for the month of April	$36,000	$9,000	$27,000	$18,000
Purchases for the month of April	18,000	6,000	12,000	9,000
Inventory, April 1, 19--	10,000	5,000	5,000	2,000
Inventory, April 30, 19--	7,000	4,000	3,000	1,000

Expenses for the month are:

	Advertising	Salaries	Supplies	Insurance
A	$256	$2,800	$225	$210
B	50	1,200	90	60
C	90	2,600	180	120
D	80	2,300	150	80
X		2,788	80	6
Y		1,800	204	8
Z		6,928	110	11

The telephone expense is $3 per instrument:

A	8 instruments	X	4 instruments
B	1 "	Y	2 "
C	2 "	Z	4 "
D	1 "		

The monthly depreciation charges are $800. They are distributed as follows:

A	27½%	X	8%
B	12½%	Y	4%
C	25%	Z	8%
D	15%		

The lighting charges are $750. These are distributed according to the number of watts used. The number of watts used is:

A	1000	X	200
B	500	Y	200
C	500	Z	800
D	300		

The X service department is to be distributed on the basis of net purchases; the Y service department, on the basis of direct advertising charges; and the Z service department, on the basis of net sales.

Instructions: (1) Prepare an expense distribution sheet.

(2) Prepare a departmentalized profit and loss statement.

The following information is to be recorded in adjusting the books at the end of October:

1. Reserve for bad debts:	
Increase by	$ 275
2. Inventories:	
Merchandise inventory, Groceries	17,500
Merchandise inventory, Meat	13,000
3. Depreciation:	
Store and office furniture and fixtures (yearly)	10%
Buildings (yearly)	4%
4. Deferred charges to expense:	
Store supplies inventory	300
Office supplies inventory	350
5. Prepaid expenses:	
Insurance prepaid	1,300
Interest prepaid on notes payable	50
6. Accrued expenses:	
Sales salaries	250
Advertising	400
Taxes	250
7. Accrued income:	
Accrued interest on notes receivable	60

Freight in on merchandise purchases is distributed $\frac{2}{3}$ to Groceries and $\frac{1}{3}$ to Meats.

Instructions: (1) Prepare a work sheet with pairs of colums for (a) Trial Balance; (b) Adjustments; (c) Gross Profit, Groceries; (d) Gross Profit, Meat; (e) Profit and Loss Statement; (f) Balance Sheet.

(2) Prepare two statements showing gross profit on sales for the two departments.

(3) Prepare a balance sheet and a profit and loss statement, using the gross profit figures obtained in (2) above.

CHAPTER 26

Problem 26-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XXVI.

The Barnes Company, of Chicago, established a branch office in St. Louis on January 1, 19--. Transactions and adjustments for the year reflecting branch operations were as follows:

(a) Cash advanced by the home office, $40,000.
(b) Shipments of merchandise from the home office to the branch, $600,000.
(c) Sales on account, $498,800.
(d) Purchases by the branch (invoices paid by the home office), $32,000.
(e) Freight in on merchandise, paid by the branch, $12,000.

(f) Store equipment purchased for cash by the branch, $40,000
(g) Remittances to home office, $280,000
(h) Collection on accounts receivable, $376 800
(i) Sales salaries, paid by the branch, $34,212
(j) General operating expenses, paid by the branch, $16 000
(k) Branch merchandise inventory, December 31, 19 , $240,000
(l) Depreciation rate 15% a year.
(m) Provision for loss from bad debts, 1% of sales

Instructions (1) Set up "T" accounts for the branch office as follows: Cash, Accounts Receivable, Reserve for Bad Debts Merchandise Inventory, Store Equipment, Reserve for Depreciation of Store Equipment, Home Office Ledger, Profit and Loss Summary, Sales Purchases, Shipments from Home Office; Freight In, Sales Salaries, Depreciation of Store Equipment, General Operating Expense, and Loss from Bad Debts Record the foregoing transactions and adjustments in these accounts

(2) Set up "T" accounts for the home office as follows Cash, Branch Ledger, Profit of Branch, and Shipments to Branch Record the effect of the transactions on these accounts

(3) Close the branch office income and expense accounts to the Profit and Loss Summary and the balance of the Profit and Loss Summary to Home Office Ledger Record the branch profit in the home office "T" accounts

(4) Prepare a profit and loss statement and a balance sheet for the branch

Problem 26-B

This problem may be completed in the workbook in the space provided for Problem 3, Chapter XXVI

The Post-Allen Company, of Salt Lake City, prepared the following balance sheet on August 31

Cash	$15,350	Store Supplies	$ 1,500
Merchandise Inventory	17,000	Accounts Payable	3,000
Equipment	21,000	Capital Stock	25,000
Res for Depr of Equip	8,400	Surplus	18,450

Transactions and adjustments for September were as follows

(a) A branch was established in Denver, at which time the home office advanced $10,000
(b) Merchandise was shipped from the home office to the branch, $20,000
(c) *All sales were for cash* home office, $49,550, branch office, $21,300
(d) Purchases were made on account by the home office, $45,000
(e) Cash expenditures were

	HOME OFFICE	BRANCH
Store supplies		$ 735
Accounts payable	$42,500	
Remittances to home office		10,000
Freight in on merchandise	190	150
Selling expenses	6,075	650
General expenses	4,650	460
	$53,415	$11,995

(f) Inventories, September 30:

Merchandise	$16,500	$2,500
Store supplies	1,000	430

(g) Depreciation rate: 10% per annum.

Instructions: (1) Open "T" accounts as follows for the home office: Cash; Merchandise Inventory; Equipment; Reserve for Depreciation of Equipment; Branch Ledger; Store Supplies; Accounts Payable; Capital Stock; Surplus; Profit and Loss Summary; Sales; Shipments to Branch; Purchases; Freight In; Selling Expenses; General Expenses; and Profit or Loss of Branch. For the branch open the following "T" accounts: Cash; Merchandise Inventory; Store Supplies; Home Office Ledger; Profit and Loss Summary; Sales; Shipments from Home Office; Freight In; Selling Expenses; General Expenses.

(2) Record the beginning balances and the transactions and adjustments for September directly in the "T" accounts (no journal entries required).

(3) Prepare work sheets for the consolidated profit and loss statement and the balance sheet.

(4) Close the income and expense accounts of the branch ledger to the profit and loss summary account. Close the balance of Profit and Loss Summary to Home Office Ledger.

(5) Record branch profit or loss on the home office books. Close the home office income and expense accounts to the profit and loss summary account, and close the balance of Profit and Loss Summary to Surplus.

CHAPTER 27

Problem 27-A

This problem may be completed in the workbook in the special space provided for it following Problem 8, Chapter XXVII.

The Noonan Manufacturing Company's trial balance on December 31, 1949, the end of the fiscal year, is given on page 646.

The following adjustments are necessary:

(1) One half of one per cent of gross sales is to be added to the reserve for bad debts.

(2) Accrued income: accrued interest on notes receivable, $180.

(3) Inventories, December 31, 1949:

(a)	Finished Goods	23,500
(b)	Goods in Process	42,200
(c)	Raw Materials	17,600

(4) Estimated depreciation and amortization:

(a)	Office furniture and fixtures	10%
(b)	Machinery and equipment	12%
(c)	Buildings	5%

(d) Patents cost $25,500, $\frac{1}{17}$ of which is written off annually (charge Patents Expense).

NOONAN MANUFACTURING COMPANY
Trial Balance
December 31, 1949

Cash in Bank	$ 66,915	
Notes Receivable	20,000	
Accounts Receivable	67,400	
Reserve for Bad Debts		$ 1,100
Finished Goods Inventory	21,700	
Goods in Process Inventory	45,200	
Raw Materials Inventory	15,300	
Office Furniture and Fixtures	15,000	
Reserve for Depreciation of Office Furniture and Fixtures		3,600
Machinery and Equipment	170,000	
Reserve for Depreciation of Machinery and Equipment		32,000
Buildings	210,000	
Reserve for Depreciation of Buildings		28,000
Land	69,500	
Patents	22,500	
Office Supplies	4 400	
Factory Supplies	10,200	
Prepaid Insurance	8,000	
Notes Payable		24,000
Accounts Payable		29,700
5% First Mortgage Bonds		150,000
Discount on Bonds	13,125	
6% Cumulative Preferred Stock ($100 par)		100,000
Common Stock ($50 par)		100,000
Unappropriated Earned Surplus		33,100
Reserve for Bond Sinking Fund		7,500
Premium on Common Stock		140,000
Sales		640,000
Sales Returns and Allowances	11,055	
Raw Materials Purchases	125 000	
Freight In	5,705	
Purchases Returns and Allowances		5,200
Direct Labor	174 300	
Indirect Labor	35,000	
Superintendents Salaries	22,000	
Maintenance and Repair of Buildings	8,300	
Heat, Light, and Power	25,500	
Property Taxes	9,000	
Miscellaneous Factory Expense	13,500	
Sales Salaries and Commissions	27,000	
Advertising Expense	40 000	
Office Salaries	22,000	
Miscellaneous Office Expense	3 800	
Purchases Discount		5,100
Interest Income		700
Sales Discount	8 000	
Bond Interest Expense	7,600	
Interest Expense	3 000	
	$1 300,000	$1,300 000

(5) Deferred charges to expense:

(a) Office supplies inventory	1,300
(b) Factory supplies inventory	3,400
(c) Prepaid insurance	2,600
(d) Prepaid interest on notes payable	150

(6) Accrued Expenses:

(a) Interest:

On notes payable, $75.

On bonds: The bonds were issued at 90 on July 1, 1948, and mature in ten years. Interest is payable quarterly; accrued interest for the last quarter of 1949 is to be recorded.

(b) Salaries and Wages:

Direct labor	3,600	Indirect labor	945
Sales salaries and commissions	2,400		

Maintenance and Repair of Buildings; Depreciation of Buildings; Heat, Light, and Power; Expired Insurance; and Property Taxes are to be distributed 80% to manufacturing operations and 20% to general operations.

The following information is also to be recorded:

(1) Increased the reserve for bond sinking fund by $15,000.

(2) Declared a dividend of $1.00 per share on common stock and a regular quarterly dividend on preferred stock, both payable on January 23, 1950, to stockholders of record January 8, 1950.

(3) Made provision for federal income tax for 1949, 38% of net income.

The following information is needed for the statement of earned surplus:

(1) Earned Surplus Unappropriated was debited during the year for three regular quarterly dividends on preferred stock.

(2) A payment of $1,050 for an additional federal income tax assessment for 1947 was also debited to Earned Surplus Unappropriated.

Instructions: (1) Prepare a work sheet with manufacturing schedule columns.

(2) Prepare (a) a profit and loss statement; (b) a supporting schedule of the cost of goods manufactured; (c) a balance sheet; and (d) a statement of earned surplus.

(3) Assuming that the journal entries needed to give effect to the foregoing information and to close the books of the corporation have all been drafted, draft the reversing entries as of January 1, 1950.

CHAPTER 28

Problem 28-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XXVIII

The following data summarize transactions completed during April by The Norton Mfg Co

(a) Raw materials purchased	$40,000
(b) Materials requisitioned for production orders	30,000
(c) Materials requisitioned for general factory use	5,000
(d) Labor on production orders	50,000
(e) Indirect labor	10,000
(f) Repairs and maintenance	7,000
(g) Building rental	6,000
(h) Products finished and transferred to stock	85,000
(i) Goods sold on account — cost	65,000
(j) Vouchers payable for payroll	55,000

Instructions (1) Set up 'T' accounts for the factory ledger in such a manner that the flow of costs will be shown and record directly in these accounts the data given above The factory overhead rate is 50 per cent of the direct labor cost

(2) Take a trial balance of the factory ledger as of April 30

Problem 28-B

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XXVIII

The accounts of The Harrison Manufacturing Company's factory ledger and subsidiary ledgers showed the following balances on June 1

Raw Materials		4,600
Goods in Process		1,000
Job No 510	825	
Job No 511	175	
Finished Goods		7 200
Commodity M, 900 units	2,700	
Commodity N, 1 000 units	4,500	
Factory Payroll (credit balance)		975
Factory Overhead (debit balance)		250
General Ledger		12,075

Raw materials of $8,800 were purchased during June Raw materials were requisitioned from the stores clerk as follows

Job No 510	1,375
Job No 511	3,425
Job No 512	2,800
For general factory use	800

Time tickets for the month were chargeable as follows:

Job No. 510 — direct labor.	3,000
Job No. 511 — direct labor.	4,000
Job No. 512 — direct labor	2,000
Indirect Labor....	2,500

Factory pay checks were received from the general office, $11,450. Various factory maintenance charges for heat, light, power, etc., were also paid by the general office, $925. Depreciation, taxes, and other fixed charges totaling $875 were charged by the general office to factory operations. A 60% overhead rate was applied to direct labor cost.

Two job orders were completed during the month: Job Order No. 510 produced 2,000 units of Commodity M; Job Order No. 511 produced 2,500 units of Commodity O.

Shipments during the month were made as follows:

1,700 units of Commodity M
600 units of Commodity N
1,200 units of Commodity O

Instructions: (1) Prepare "T" accounts for the factory ledger and the subsidiary ledgers. Record directly in these accounts the balances as of June 1 and the transactions completed during the month.

(2) Take a trial balance.

(3) Prove the subsidiary ledgers with the control accounts in the factory ledger.

(4) Using a selling price of $17,000 for goods shipped during the month and selling and general expenses of $3,300, construct a profit and loss statement for June like the one on page 524.

CHAPTER 29

Problem 29-A

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XXIX.

The Ridge Distributors, Inc., maintains its records so that cost analyses can be made of its three selling functions, which are then expressed as costs per each unit sold. Costs not directly allocable to the three functions are charged to two service departments that are utilized by the three functions as follows:

	Service Dept. M	Service Dept. N
Function 1................	10%	15%
Function 2................	70%	60%
Function 3................	20%	25%

During the year the following transactions applicable to these three functions and the two service departments were:

(a) Salaries were paid as follows

Function 1	$ 4 800	Service Dept M	$ 3 000
Function 2	30 000	Service Dept N	16 200
Function 3	2 500		

(b) Supplies were used as follows

Function 1	$ 200	Service Dept M	$ 500
Function 2	1 515	Service Dept N	750
Function 3	250		

(c) Depreciation was charged as follows

Function 3	$ 800	Service Dept M	$ 9 000
		Service Dept N	400

(d) Taxes were chargeable to

Function 3	$ 50	Service Dept M	$ 750
		Service Dept. N	25

(e) Insurance expired was chargeable to

Function 2	$ 225	Service Dept M	$ 550
Function 3	150	Service Dept. N	250

(f) Repair bills were paid for

Function 3	$ 50	Service Dept M	$ 125
		Service Dept N	425

(g) Heat, light and power bills of $2 075 were paid These were chargeable to Service Dept M

(h) Miscellaneous general expenses chargeable to Service Dept. N were paid in the amount of $1 950

(i) Function 2 should be charged with traveling expenses of $5 000 that were paid

Instructions (1) Post the foregoing information to the required function and service department accounts

(2) Post the proper distribution of service department costs to the three functions close the service department accounts

(3) Compute unit costs for each of the three functions assuming the sale of 100 000 units.

CHAPTER 30

Problem 30 A

This problem may be completed in the workbook in the space provided for Problem 1 Chapter XXX

The executives of Woodford Incorporated require an estimated income statement for the fiscal year ending June 30 1950 The following information is available

Sales The selling price which has been $20 per unit is to be reduced 10% It is anticipated that this price reduction will result in a sales volume increase of 29 000 units.

Cost of Goods Sold The unit cost is $12 Purchases plus the beginning inventory should equal the total yearly sales volume plus an ending inventory of the sales requirements for one and one half months (Assume that monthly sales are distributed evenly throughout the year)

WOODFORD, INCORPORATED
Profit and Loss Statement
For the Year Ended June 30, 1949

Sales			$860,000
Cost of Goods Sold:			
Merchandise Inventory, July 1, 1948		$108,000	
Purchases....		528,000	
Merchandise Available for Sale		$636,000	
Less Merchandise Inventory, June 30, 1949		120,000	
Cost of Goods Sold .			516,000
Gross Profit on Sales			$344,000
Operating Expenses:			
Selling Expenses:			
Sales Salaries	$50,000		
Advertising.	35,000		
Depreciation of Store Equipment	*6,000*		
Miscellaneous Selling Expense	15,000		
Total Selling Expenses		$106,000	
General Expense:			
Officers Salaries	$20,000		
Office Salaries..	25,000		
Office Supplies Used	15,760		
Depreciation of Office Equipment	2,000		
Loss from Bad Debts	8,600		
Rent... .. .	30,000		
Total General Expenses		101,360	
Total Operating Expenses			207,360
Net Profit from Operations			$136,640
Other Income:			
Purchases Discount		$ 10,560	
Other Expense:			
Sales Discount		17,200	
Net Deduction.			6,640
Total Net Profit before Provision for Federal Income Tax			$130,000
Less Provision for Federal Income Tax			52,000
Net Profit after Provision for Federal Income Tax			$ 78,000

Selling Expenses:

(a) Sales salaries will increase 10%.
(b) The amount to be spent for advertising for the coming fiscal year is $10,000.
(c) Depreciation of store equipment, same as for preceding year.
(d) Miscellaneous selling expenses will increase 5%.

General Expenses:

(a) Officers' salaries will increase $3,500.
(b) Office salaries will increase 10%.
(c) Office supplies used will increase $2,300.
(d) Depreciation of office equipment, same as for preceding year.
(e) Loss from bad debts is estimated at 1% of sales.

(f) The lease on the property now rented will expire on October 1, 1949. Upon the expiration of the lease, the company plans to exercise an option to purchase the property for $435,000. The owner has been paying property taxes of $2,400 a year, for which the company will be liable beginning October 1. Depreciation on the building is to be computed at 4% a year.

Other Income and Expenses: Cash discounts are to be estimated at 2% of sales and purchases respectively.

Income Tax: Assume that the federal income tax rate is 40%.

Instructions: Prepare an estimated profit and loss statement for the year ending June 30, 1950.

CHAPTER 31

Problem 31-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XXXI.

The Hollywood Corporation reported the following comparative balance sheets for December 31, 1950, and December 31, 1949:

THE HOLLYWOOD CORPORATION
COMPARATIVE BALANCE SHEETS
DECEMBER 31, 1950 AND 1949

ASSETS	1950	1949	LIAB. AND PROP.	1950	1949
Cash	135,000	138,000	Notes Payable	75,000	15,000
Accounts Receiv.	105,000	102,000	Accounts Payable	45,000	120,000
Mdse. Inventory	180,000	120,000	Common Stock	369,000	300,000
Plant (less Res.)	231,000	132,000	Surplus. . .	166,500	66,000
Organization Exp	4,500	9,000			
Total Assets	655,500	501,000	Total Liab & Prop.	655,500	501,000

INCOME DATA:	1950	1949
Sales . . .	750,000	900,000
Cost of Sales	600,000	675,000
Operating Expenses	90,000	135,000
Purchases Discount	9,000	6,000
Sales Discount .	6,000	12,000
Interest Expense .	3,000	750
Net Income. .	60,000	83,250

OTHER DATA:

Merchandise Inventory, 1/1/49, $105,000.
Dividends paid in 1950, $30,000.
Write-up of plant during 1950, $75,000.
Notes given for increase in plant assets, $30,000.

Instructions: (1) Indicate whether or not conditions are improving for the company. Use the following ratios and other analyses:

(a) Current ratio.
(b) Acid-test ratio.
(c) Ratio of owned capital to borrowed capital (analyze surplus account first).

CHAPTER 32

Problem 32-A

This problem may be completed in the workbook in the space provided for Problem 1, Chapter XXXII

Data from comparative balance sheets for Knox, Inc as of December 31, 1949 and 1950 are given below

Assets	December 31, 1950	December 31, 1949
Cash	3,900	2,500
Notes Receivable	3,750	4,500
Accounts Receivable	21,000	18,500
Merchandise Inventory	38,500	34,500
Store Fixtures	19,000	17,000
Building	41,500	32,500
Land	25 000	25,000
	152 650	134,500

Liabilities and Proprietorship		
Accounts Payable	33,500	37,500
Mortgage Notes	20 000	25,000
Reserve for Depreciation of Store Fixtures	6,750	4,250
Reserve for Depreciation of Building	5,500	3,500
Common Stock	65 000	50,000
Surplus	21,900	14 250
	152 650	134,500

The statement of surplus for the year 1950 appears as follows

Balance of Surplus, December 31, 1949			14,250
Net Profit for 1950 after Provision for Income Tax			15,150
			29,400
Deduct	Stock dividend	2,500	
	Cash dividend	5,000	7,500
Balance of Surplus, December 31 1950			21,900

Depreciation was provided during the year as follows

Store Fixtures	2,500
Building	2,000

Instructions Prepare a source and application of funds statement with a supporting schedule for working capital

Problem 32-B

This problem may be completed in the workbook in the space provided for Problem 2, Chapter XXXII.

The tabulation of operating data for the Gray-Wood Corporation is shown below. This tabulation covers the ten-year period ended on December 31, 1950. On December 31, 1941, the corporation had outstanding 2,500 shares of common stock, each share having a par value of $100.

GRAY-WOOD CORPORATION
TABULATION OF OPERATING DATA
FOR TEN YEARS ENDED ON DECEMBER 31, 1950

YEAR	NET SALES	NET PROFIT AFTER INCOME TAX	RATIO OF PROFIT TO SALES	DIVIDENDS DECLARED	PROFIT REINVESTED	DIVIDEND RATE
1941	300,000	30,000	10%	25,000	5,000	10%
1942	375,000	45,000	x	x	x	15%
1943	450,000	x	10%	x	x	10%
1944	400,000	32,000	x	x	x	10%
1945	480,000	80,000	x	x	x	10%
1946*	450,000	67,500	x	65,000*	x	x
1947	420,000	63,000	x	45,000	x	x
1948	325,000	65,000	x	45,000	x	x
1949	400,000	48,000	x	45,000	x	x
1950	450,000	x	15%	45,000	x	x

*The dividend for 1946 included a stock dividend of 20 per cent declared in January of that year. All cash dividends declared in that year applied to the new stock as well as to the old.

Instructions: (1) Supply the data omitted in the tabulation and indicated by an x.

(2) During the ten-year period the gross profit on sales amounted to $2,105,000, and the selling and administrative expenses were $1,200,000. Assuming that the average income tax rate was 40 per cent, construct a cumulative profit and loss statement for the ten-year period ended on December 31, 1950.

APPENDIX B

BUSINESS PAPERS

Various business papers are illustrated throughout ACCOUNTING PRINCIPLES as the basis for the record of business transactions These business papers include the following purchase order, purchase invoice, credit memorandum, sales invoice, deposit ticket check and check stub bank statement interest bearing note non interest bearing note, petty cash voucher voucher jacket payroll check, stock certificate Further information about some of these business papers and about additional business papers that are important in connection with the completion of business transactions is given in this appendix

NEGOTIABLE INSTRUMENTS A negotiable instrument is a written promise or order to pay money, the instrument being transferable from one person to another by indorsement and delivery

The most common form of written *promise* to pay money is the *promissory note* There are two original parties to every promissory note (1) the one who signs the note and makes the promise to pay, called the *maker*, and (2) the one to whom the money is to be paid, called the *payee*

The most commonly used forms of written *orders* to pay money are checks bank drafts, commercial drafts, trade acceptances, and money orders There are three original parties to every written order to pay money (1) the one who signs the order, called the *drawer*, (2) the one who is ordered to make the payment, called the *drawee*, and (3) the one to whom the money is to be paid, called the *payee*

Negotiable instruments may be classified according to their use into two general groups namely those that are used as substitutes for money and those that are used as evidence of debt The instruments most commonly used as substitutes for money are checks cashier s checks certified checks bank drafts and money orders Those most commonly used as evidences of debt are promissory notes, sight drafts, time drafts and trade acceptances

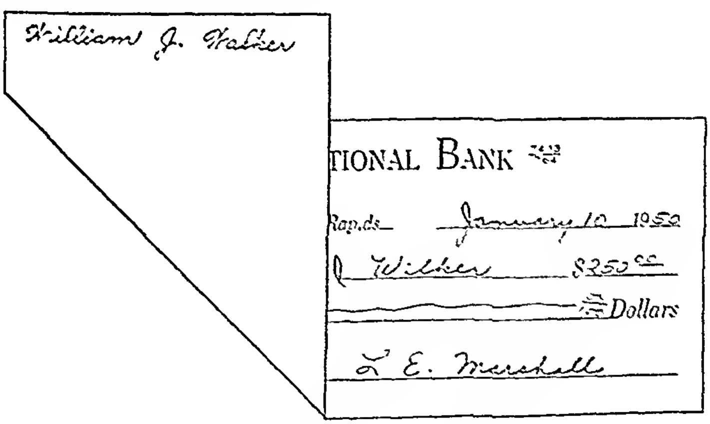
Essential Elements of Negotiable Instruments In order to be negotiable, an instrument must have the following characteristics

1 It must be in writing and must be signed by the maker or the drawer
2 It must contain an unconditional promise or order to pay a certain sum of money
3 It must be payable on demand or at a time that is either fixed or determinable
4 It must be payable to bearer or to order

It may be wholly or partly printed, typewritten, or handwritten, preferably in ink.

Words of Negotiability. To be negotiable (transferable by indorsement and delivery), an instrument must contain words of negotiability, such as "to the order of" or "to bearer." The following are examples of wording that may be used to indicate negotiability: "I promise to pay to the order of Ray Nolton," "I promise to pay Ray Nolton or order," "I promise to pay to the bearer," "Pay to the order of Ray Nolton," and "Pay to bearer."

INDORSEMENT OF NEGOTIABLE INSTRUMENTS It is frequently necessary to transfer a negotiable instrument from one party to another. The legal transfer of a negotiable instrument is effected by (1) indorsement by the payee or the holder and (2) delivery to the party to whom the instrument is to be transferred. In addition to effecting the transfer of the negotiable instrument, the indorsement serves as a guaranty that the instrument is valid and genuine and that the indorser has a legal title to it. In case the payer fails to pay the instrument on the date of maturity, the holder can usually hold the indorser responsible for payment, provided the holder complies with the legal requirements in reference to presentation and to giving notice to the indorser.



Position of an Indorsement

The indorsement is customarily written or stamped on the back of the negotiable instrument. The first indorsement is, through custom, placed near the left end of the instrument. The position of an indorsement is shown in the illustration above.

A negotiable instrument should be signed by the party or parties responsible for its payment or by an authorized agent. Any partner in a trading partnership may sign a negotiable instrument and thus

bind the firm by his action if the instrument is issued in the regular conduct of the business. In a corporation such instruments are signed by some officer or employee authorized by the bylaws to do so. When issued by a partnership or a corporation, negotiable instruments are signed with the name of the business and, in addition, with the name of the officer who is authorized to sign the name of the business.

There are several forms of indorsements, each being used for a different purpose. The most important forms are the following:

1. *Blank.* An indorsement in blank is one that merely shows the name of the payee or the holder across the back of the instrument without any qualifying or limiting words. It has the same effect as making the paper payable to bearer; and the instrument may be transferred by any subsequent holder without further indorsement. But the indorsement of each transferor is usually required so that each can be readily identified as one of the parties responsible for the payment of the instrument in case the one who should make payment does not do so.

> *William Johnson*

2. *Full.* An indorsement in full contains the words "Pay to the order of" and the name of the person or the firm to which the instrument is transferred, in addition to the name of the payee or the holder who transfers the instrument. The person to whom the instrument is transferred must indorse it before any succeeding holder can obtain title to it. All papers sent through the mail or to be held for some time by the person who receives them should be indorsed in full.

> *Pay to the order of*
> *Harold Jackson*
> *William Johnson*

3. *Qualified.* A qualified indorsement is one that passes the title to the instrument without rendering the indorser liable in the event that the maker is unable or refuses to pay. It is accomplished by writing the words "Without recourse" above the signature of the indorser.

> *Pay to the order of*
> *R. E. Duff*
> *Without recourse*
> *M. L. Rose*

4. *Restrictive.* A restrictive indorsement is one that makes the indorsee an agent of the the indorser. For example, a note left at a bank for collection may have the words "For collection" written above the indorsement. This prevents the paper from being used as the property of the bank. Other restricting phases that are used include the words "For collection and credit" or "For deposit."

Pay to the order of
The Hyde Park State Bank
For collection
M. L. Rose

A payee or indorsee whose name has been misspelled on a negotiable instrument must indorse the instrument twice, first writing his name exactly as it is spelled on the paper and then writing an indorsement containing his correct signature.

PROMISSORY NOTES

A *promissory note* or a *note* is an unconditional promise in writing, signed by the promisor, to pay a certain sum of money on demand or at a definite time to the order of a designated person or to the bearer. There are two original parties to a note: (1) the *maker*, who signs the note and makes the promise to pay; and (2) the *payee*, who is to receive the payment and in whose favor the promise is made. The purpose of the note is to provide written evidence of the maker's indebtedness to the payee, which may be transferred from one person to another by indorsement.

A note may be interest-bearing or non-interest-bearing. It is non-interest-bearing unless it contains an express statement to the effect that interest is to be paid. If a note contains the words "with interest" but does not specify the rate, it is assumed that interest is to be paid at the legal rate. An interest-bearing promissory note is illustrated on page 185; a non-interest-bearing, on page 190.

Maturity of Notes. Promissory notes may be so drawn as to be payable (1) a stated number of days, months, or years after the date of the note; (2) on a specified date, as "On July 14 I promise to pay"; (3) on demand, as "On demand (or At sight) I promise to pay"; or (4) on or before a specified date, as "On or before March 28 I promise to pay."

Rights and Responsibilities of the Parties to a Note. By signing a promissory note, the maker acknowledges the existence and the amount of the debt for which the note is issued, and agrees to pay the note in accordance with its terms. The payee may hold the note

and receive payment from the maker at maturity, or he may indorse it to a third person, who may again transfer it or hold it until maturity and collect from the maker. If the payee transfers the note, he becomes liable as an indorser and is responsible for its payment if the maker fails to pay.

The holder of a note is not required to present it to the maker at maturity in order to hold the maker liable for its payment. The maker's obligation is unconditional; it is his duty to seek the holder and to tender payment when payment is due. For the convenience of both the maker and the holder, most notes are drawn payable at a special place, usually the maker's bank. Either the holder or his agent is expected to go to that place to receive payment, but his failure to do so does not release the maker from his obligation to pay. However, if there are any indorsements on the note, the holder is required by law to present the note promptly at maturity and to demand payment if it is his intention to hold the indorsers liable.

If the maker fails to tender payment or refuses to pay when payment is due, the note is said to be dishonored and is no longer negotiable. The holder has the right to bring legal action at once against the maker to enforce payment; and the maker will be required to pay the costs of such action as well as the amount due on the note, including interest from the date of dishonor to the date of payment.

Accounting for Promissory Notes. Various uses of promissory notes and the methods of accounting for them are discussed and illustrated in Chapter XI, pages 185 to 202 of this textbook The registers that may be used in recording notes receivable and notes payable are discussed and illustrated in Chapter XV, pages 262 to 265.

COMMERCIAL DRAFTS A draft is a written order by which one party directs another to pay a specified sum *of money to the order of the first party or to the order of a third party.* A draft is sometimes referred to as a *bill of exchange,* but this term is most frequently applied to drafts used in international transactions

There are three parties to a draft. The person who makes the request or order and whose signature is written at the lower right on the face of the instrument is called the *drawer;* the person on whom the draft is drawn and who is directed to make the payment is called the *drawee;* and the person in whose favor the draft is drawn and to whom the amount is to be paid is called the *payee.*

Drafts may be used either as evidence of debt or as substitutes for money. Those used as evidence of debt are known as commercial

drafts. A *commercial draft* may be defined as a written order drawn by one person on his debtor, directing the latter to pay a certain sum of money to the drawer or to a third person. The drawee named in a commercial draft is always an individual or a firm other than a bank.

The forms of drafts most commonly used as substitutes for money are bank drafts and checks. A *bank draft* is a written order drawn by one bank on another and is evidence that the bank drawing the draft has money on deposit in the bank on which the draft is drawn. A *check* is a written order drawn on a bank by a depositor who is an individual or a firm other than a bank. It should be observed that in both of these forms the drawee, that is, the party on whom the draft is drawn, is a bank. In the case of a bank draft, the drawer is a bank also; whereas in the case of a check, the drawer is a party other than a bank.

Kinds of Commercial Drafts. According to the time of payment commercial drafts may be classified as follows:

1. *Sight drafts.* A sight draft is a draft that is payable at sight; that is, it is payable as soon as it is presented for payment.
2. *Time drafts.* A time draft is a draft that is payable a certain number of days after sight or after date.

According to the number of original parties, commercial drafts may be classified as follows:

1. *Three-party drafts.* A three-party draft is a draft in which the drawer, the drawee, and the payee are different persons.
2. *Two-party drafts.* A two-party draft is a draft in which the drawer and the payee are the same person.

Commercial Sight Drafts. Commercial sight drafts are used for two purposes, namely, to collect accounts that are past due and to collect for C.O.D. freight shipments.

Sight Draft Used for Collecting an Account. Sight drafts are often used by creditors as a means of demanding payment of past-due accounts. The procedure in detail is as follows:

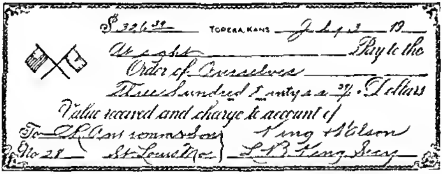
1. The creditor draws a two-party sight draft on the debtor. The creditor indorses it and gives it to his bank for collection.
2. The creditor's bank indorses and forwards the draft to a correspondent bank in the city where the debtor, or drawee, is located.
3. The receiving bank presents the draft to the drawee for payment.
4. If payment is obtained, the draft is marked "Paid" by the receiving bank and is given to the drawee as a receipt for his payment. If the

receiving bank is unable to obtain payment, it returns the draft to the sending bank with a notation giving the reason for the drawee's failure to pay

5 The receiving bank then remits the amount of the paid draft, less possibly a collection fee by bank draft to the sending bank or credits it to an account carried with the sending bank

6 Upon receiving the remittance from the receiving bank, or a notice of the credit the sending bank credits the proceeds to the account of the drawer

To illustrate, the draft shown below was drawn by King & Wilson who wished to collect \$326 39 from C R Ankromm & Son Since this draft was made payable to the order of "ourselves," that is, to the order of King & Wilson they were obliged to indorse it in order to make it further negotiable The draft was then given to King & Wilson's bank in Topeka to be forwarded to a bank in St Louis The St Louis bank received the draft and presented it to C R Ankromm & Son for payment When C R Ankromm & Son paid the draft, the bank in St Louis either remitted the proceeds by bank draft to the Topeka bank or credited the amount to the Topeka bank's account The Topeka bank then credited the proceeds to the bank account of King & Wilson



Commercial Sight Draft

Instead of drawing the draft in favor of themselves, King & Wilson could have made it payable to their bank in Topeka It would then have been a three-party draft The procedure of collecting the draft would have been the same as before except that King & Wilson would not have been required to indorse the draft before giving it to their bank for collection

The drawee is not compelled to pay the draft, but his refusal to pay may reflect unfavorably on his credit with the local bank In order that his credit standing may not be impaired, the drawee usually

pays the draft when it is presented, unless there is some justifiable reason for refusing payment.

Sight Draft Used to Collect C.O.D. Freight Shipment. Express and parcel-post shipments may be sent C.O.D., and the express agent or postmaster at the point of destination will collect the amount due before he delivers the merchandise to the purchaser. Railroad and steamship companies, however, allow the seller to make shipment in such a manner that a third party, usually a bank, may act as the seller's collection agent at the point of destination and obtain payment from the purchaser before the merchandise is delivered to him. In general, the details of the procedure for making collection on a C.O.D. freight shipment are as follows:

1. The seller ships the goods on an order bill of lading[1] in which the merchandise is consigned to the order of himself, and he attaches to it a sight draft drawn on the purchaser.
2. The seller indorses the order bill of lading and the sight draft, and sends both papers to his bank for collection.
3. The seller's bank, in turn, indorses both papers and sends them to a bank in the city of the purchaser.
4. Upon receipt of the draft and the bill of lading, the receiving bank notifies the purchaser that these two papers have arrived.
5. The purchaser pays the draft and is given the bill of lading, properly indorsed to him by the receiving bank, with which he can obtain the merchandise from the transportation company. The draft is marked "Paid" by the receiving bank and is given to the purchaser as a receipt for his payment.
6. The receiving bank then remits the amount collected, less possibly a collection fee, by bank draft to the sending bank or credits the amount to the latter's account.
7. The sending bank, in turn, credits the proceeds to the bank account of the seller.

Commercial Time Drafts. A time draft is one that is payable a certain number of days after sight or after date. If the person directed to pay is willing to do so, he indicates this by writing his name across the face of the draft if the draft is payable a certain number of days after date, or by writing his name and the date if the draft is payable a certain number of days after sight. He may also precede his name with the word "Accepted." The drawee who signs in this manner is then known as the *acceptor* of the draft, and the draft is referred to as an *acceptance*.

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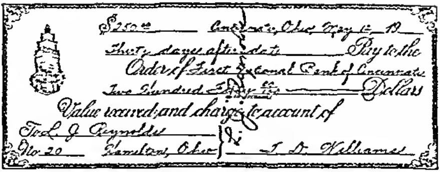
[1]An order bill of lading is illustrated on page 678.


$250.00 Cincinnati, Ohio May 12 19__
Thirty days after date Pay to the
Order of First National Bank of Cincinnati
Two Hundred Fifty 00/100 Dollars
Value received and charge to account of
Fred G. Reynolds
No. 20 Hamilton, Ohio
J. D. Williams

Accepted Time Draft

If the draft is payable a certain number of days after sight, the date of maturity is the given number of days after the date on which the drawee accepts the draft. If it is payable a certain number of days after date, the date of maturity is the given number of days after the date on which the draft is drawn. The draft shown on this page is payable 30 days after date, that is, 30 days after May 12. If the draft had been payable 30 days after sight, Mr. Reynolds would have written the date of acceptance as well as his signature, and the draft would have been due 30 days after that date.

A time draft is usually drawn for one of the following purposes: (1) to obtain a debtor's formal written acknowledgment of his indebtedness and his agreement to pay at a definite time; (2) to obtain a negotiable instrument that the drawer can discount at his bank; (3) to obtain written evidence of a sale on credit. A time draft drawn at the time of a sale is usually a special form of draft known as a *trade acceptance.*

Obligations of the Parties to a Commercial Draft. The drawee of a draft is under no obligation to accept it. If he does accept it, he pays a sight draft or he writes his acceptance across the face of a time draft. The acceptance of a time draft makes it the written promise of the acceptor to pay the amount stipulated at the specified time. The instrument thus becomes to all intents and purposes a promissory note and is so treated by the original parties and subsequent holders.

Trade Acceptance. The trade acceptance is a negotiable instrument that is designed to serve as a substitute for the open account. It is a special form of time draft that shows on its face that it has arisen out of a purchase of goods by the acceptor. It is drawn by the seller at the time of the sale and is accepted by the purchaser when he

receives the merchandise. It differs from an ordinary time draft or promissory note in the following respects:

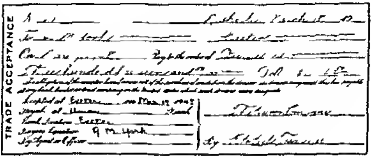
1. It is always given at the time of the sale and is drawn to mature at the end of the regular term of credit granted by the seller, whereas a time draft or a note may be given at any time and for any period of time.
2. It arises out of a merchandise transaction and cannot be given for a loan of money or an extension of time on an overdue account.
3. It is self-liquidating in that the resale of the merchandise by the acceptor will provide funds out of which the acceptance may be paid at maturity. Notes and time drafts are not, as a rule, self-liquidating because they are generally given for a loan of money or an extension of the time on an indebtedness that is overdue.
4. It is taken for discount by banks more readily than an ordinary note or time draft because it is self-liquidating in character and likely to be paid at maturity.
5. It is a more liquid asset than is either an ordinary time draft or a promissory note because it is more readily discounted by banks.

The use of the trade acceptance in place of the open account as a means of extending credit has the following advantages for the seller:

1. The seller does not have to wait until the debt matures before getting his money, but can obtain the money immediately by discounting the acceptance. The seller is relieved of the burden of using his own capital to finance the purchases of the buyer.
2. The trade acceptance is presumptive evidence of the acceptor's indebtedness; therefore, the seller may enforce its payment without having to furnish additional evidence of the debt.
3. Losses on bad debts are reduced because the trade acceptance must be paid promptly at maturity.
4. The seller has complete control over the discount privilege because it is he who draws the acceptance and fixes the amount that is to be paid. (When a cash discount is offered, it is not for the purpose of inducing the customer to make prompt payment but rather for the purpose of inducing him to agree to make payment on a specified date.)
5. The trade acceptance can be converted into cash with much less expense and inconvenience than can an open account.

The use of the trade acceptance may be explained by an illustration. The Huron Company, of Nashville, sells $314.50 worth of merchandise to G. M. York, of Exeter, terms sixty-day trade acceptance. The Huron Company draws the acceptance, using the form prescribed for a trade acceptance, as shown below. G. M. York accepts

the form and returns it to The Huron Company The latter may keep it for sixty days and then present it for payment or, if the company desires it may discount the acceptance at its local bank. In the latter case the bank will give The Huron Company credit for the proceeds of the acceptance at the time it is discounted and at its maturity will send it to some Nashville bank which will collect it from G M York.



Trade Acceptance

Accounting for Drafts and Acceptances When a draft or a trade acceptance is mailed to a debtor no entry is made in the books of account because the debtor has not assumed any obligation on the instrument until he has accepted it It may be convenient however for a business to keep a memorandum record of the drafts and acceptances issued and the disposition that is made of them Such a memorandum record is illustrated below

DRAFTS AND TRADE ACCEPTANCES ISSUED

Date of Paper		Drawee	Face Amount	When Payable	Presenting or Collecting Agent	Disposition		
						Date		
19								
Nov	5	Butler Co	200 00	On sight	1st Nat l Bk	Nov	10	Paid
	8	A L Parks	375 00	30 days after sight	1st Nat l Bk	Nov	12	Accepted
	12	S R Nash & Co	500 00	Dec 19	1st Nat l Bk	Nov	17	Honored
	18	J J White Co	295 50	30 days after date	1st Nat l Bk	Nov	21	Accepted
	24	Rhodes & Co	42 00	Dec 24	1st Nat l Bk			
	29	C C Rolfe & Co	610 00	On sight	1st Nat l Bk			

Memorandum record of drafts and acceptances issued

When a debtor accepts a sight draft he does so by making payment He therefore records the transaction in his cash payments journal as a debit to the creditor When a debtor has accepted a time draft or acceptance he has assumed the same liability as when he has signed a

note. Separate accounts may be maintained for drafts and acceptances receivable and payable, but it is common to record them with the notes receivable and payable. Therefore, when a debtor accepts a time draft or trade acceptance he may make an entry similar to the following:

May 7	Accounts Payable — Farley and Holmes	1,250	
	Notes Payable		1,250
	Accepted a 30-day trade acceptance, dated May 5.		

When a creditor receives payment upon the acceptance of a sight draft, he makes an entry in his cash receipts journal, debiting cash and crediting the customer. If the draft was collected through a bank, it is also necessary to record a collection expense. When a creditor receives an accepted time draft or trade acceptance, he makes the following entry.

May 9	Notes Receivable	1,250	
	Accounts Receivable — A. C. Rutledge		1,250
	Received 30-day accepted draft, dated May 5.		

Accepted time drafts and trade acceptances may be recorded in a notes payable register by a debtor and in the notes receivable register by the creditor, similar to the registers illustrated in Chapter 15, pages 262-265. If many drafts or acceptances are used, separate registers may be provided for them.

NEGOTIABLE INSTRUMENTS USED AS SUBSTITUTES FOR MONEY

Checks. A check is a written order on a bank directing the bank to pay a certain sum of money to a designated person. The person making the demand has money deposited in the bank with the understanding that the bank will deliver it on his order. Since a check is an order to pay money, there are three original parties: (1) the person drawing the order, known as the *drawer;* (2) the bank on which the order is drawn, known as the *drawee;* and (3) the person to whom the draft is payable, known as the *payee.*

Rights and Responsibilities of the Payee. The payee of a check may cash it at the bank on which it is drawn, deposit it in his own bank for collection, or transfer it to another person. Generally the payee deposits it.

When the payee deposits the check or disposes of it in some other manner, he is required to indorse it. By indorsing the check, the payee transfers his title to the instrument, acknowledges receipt of cash or

other assets for the amount named and becomes liable to subsequent holders for the payment of the check

Rights and Responsibilities of the Bank The bank must bear the loss if it pays a check to any person other than the one named if it pays a check on which the depositor s signature has been forged, if it pays a raised check that bears evidence of alteration and if it pays a check on which payment has been stopped

The bank s obligation is to the drawer or depositor, not to the payee or subsequent holders and the bank may refuse at times to honor a check in order to protect the depositor or itself against possible loss There are numerous circumstances under which payment of a check is often refused chief of which are the following

1 *Insufficient funds* The bank is under no obligation to honor a check unless the drawer has on deposit sufficient funds to pay it The bank may however pay the check and call upon the drawer for an immediate deposit

2 *Check drawn in pencil* It is legal to draw a check in pencil Many banks will not honor a check drawn in this manner however, because of the ease with which such a check can be altered and the possibility that it may have been raised or materially altered after leaving the hands of the drawer

3 *Evidence of erasure or other alteration* Because of the bank s liability in connection with the payment of an altered check the bank will not honor a check that bears evidence of erasure or other alteration The erasure or alteration may have been made by the drawer himself, but the bank has no way of knowing this

4 *Postdated check* By dating a check the drawer indicates the date on or after which the bank may honor the check for payment The bank will therefore refuse to pay a check that is presented before the date that it bears To pay it before the date specified would be contrary to the order of the drawer

5 *Date missing* Since the bank has authority to pay a check only on or after the date that it bears the bank may refuse to honor a check on which the date is missing It may have been the drawer s intention to postdate the check

6 *Discrepancy between the amount in words and the amount in figures* When the amount in words differs from the amount in figures the amount in words is considered the correct amount of the check If there is a material difference the bank will probably withhold payment until it obtains from the drawer information as to the correct amount

7 *Incorrect signature of the drawer* The bank may refuse to honor a check on which the signature of the drawer is not the same as the one appearing on the drawer s signature card

8. *Identification of the indorser.* Since the bank must bear the loss if it pays to the wrong person, the bank will refuse payment on a check if the one presenting it cannot identify himself as the payee or indorsee named on the check. In the case of a bearer check — one that is not payable to any specified individual — the person presenting it must be one who is personally known at the bank. Otherwise the bank will refuse to pay it.
9. *Payment stopped.* The bank will refuse to pay a check on which payment has been stopped.

Rights and Responsibilities of the Drawer. The principal rights and responsibilities of the drawer of a check are the following:

1. The drawer may stop payment on a check at any time before it is paid by filing a stop-payment order with the bank on which the check was drawn.
2. The drawer may hold the bank liable for the loss resulting from the payment of a check on which his signature was forged.
3. The drawer must bear the loss on a raised check if the check was drawn carelessly or in such a manner that it could be altered without bearing evidence of the alteration.

Certified Check. A certified check is one the payment of which is guaranteed by the bank on which it is drawn. The procedure of certification is as follows: The drawer or holder of the check presents it at the bank for certification. An officer of the bank examines the drawer's account to see that the balance is sufficient to cover the check. If the drawer's balance is sufficient, the check is stamped "Certified" across the face, this word being followed by the date, the name of the bank, and the signature of the bank's cashier, and is then returned to the person who presented it for certification. The amount of the check is immediately charged against the drawer's account, and the bank becomes responsible for meeting the check when it is later presented for payment.

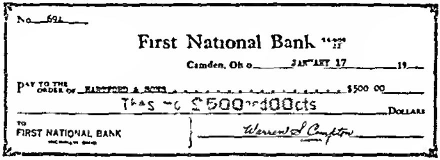
The drawer may ask to have his check certified when he has a payment to make to someone who does not know him and who will not accept his personal check. The holder of a personal check, having accepted it but feeling uncertain as to its payment, may request certification at the drawer's bank in order to be assured that payment will be made.

If for any reason the drawer does not make use of a check that he has had certified, he must deposit it in order to get credit for it at his bank.

Cashier's Check. A cashier's check is a check drawn on a bank by its cashier, and is used chiefly in the payment of the obligations of the

bank and of collections made for persons who have no accounts with the bank

Bank Draft A bank draft is a check drawn by one bank on another bank and is evidence that the bank drawing the draft has money on deposit in the bank on which the draft is drawn The purpose and use of a bank draft may be explained by means of an illustration


No. 694

First National Bank

Camden, Ohio January 17 19

Pay to the order of Hartford & Sons $500 00

Dollars

To First National Bank

Bank Draft

If Hartford & Sons who live in Camden Ohio wish to pay $500 to Arthur Blake in Cincinnati Ohio they may go to their bank in Camden and ask to purchase a draft Their bank in Camden will probably have money on deposit in some bank in Cincinnati and will draw a draft on this bank ordering it to pay Hartford & Sons $500 On paying the Camden bank $500 plus a small fee, Hartford & Sons will receive the draft which they will indorse and send to Arthur Blake The latter will treat it in the same manner as any incoming check and will either cash it or deposit it in his bank in Camden

It should be observed that the draft in the foregoing illustration was made payable to Hartford & Sons the debtor It was then indorsed by them to the creditor Arthur Blake There are two reasons why the draft should be drawn in this manner and should not be drawn payable to the creditor (1) If in Blake s office the draft should become separated from Hartford & Sons' letter of remittance Blake can identify the sender by observing the name of the person specified on the draft as the payee (2) After the draft is indorsed by Blake and is paid by the First National Bank, the draft becomes a receipt in favor of Hartford & Sons Their indorsement shows that they transferred the draft to Blake, and the latter s indorsement shows that he received the payment If the draft had been originally drawn with Blake named as the payee, the paid draft would not have constituted a receipt in favor of Hartford & Sons because there would have been no evidence on the draft that it was they who purchased it and gave it to Blake

Money Orders. A money order is an order for the payment of money. Money orders are of two kinds: postal money orders and express money orders. A postal money order is a *government order* for the payment of money, which is issued at one post office on the sender's written application, and is payable at some specified office to the holder upon the latter's proper identification. An express money order is a check that is issued by an express company on the application of the person wishing to make the remittance, who deposits the amount with the express company, and is payable at some specified office to the holder.

BILLS OF LADING When merchandise is shipped by freight, a *bill of lading* is filled out to include the following information: the name of the carrier receiving the shipment; the place and the date; the name and the address of the shipper and of the consignee; the routing of the shipment, that is, the names of the carriers that are to handle the shipment; and the number, weight, and description of the contents of the packages or cases shipped.

The bill of lading is prepared in triplicate. The first copy, known as the *original,* is signed by both the shipper and the carrier's agent and is issued to the shipper as a receipt for the goods delivered to the carrier. It is both a receipt and a contract. It states that the carrier has received the goods described thereon, and it sets forth the terms and conditions under which the carrier agrees to transport the property. The second copy, called the *shipping order,* is signed by the shipper only and is retained by the carrier as evidence of its authority. The third copy, called the *memorandum,* is a duplicate of the first and is signed by the shipper and the agent. It is issued to the shipper as a duplicate receipt.

There are two forms of the bill of lading, the *straight bill of lading* and the *order bill of lading.* The straight bill of lading is nonnegotiable and is used for shipping an order of merchandise that has been paid for in advance or that has been sold on account. The shipment is consigned to the customer, and the original bill of lading is forwarded to him by mail. When the shipment reaches its destination, the freight agent at that point sends the consignee a freight arrival notice. If the consignee is not personally known to the freight agent, he will be required to present his copy of the bill of lading in order to obtain possession of the goods. He will also be required to present it in case the goods are damaged in transit and he files a claim against the transportation company.

The order bill of lading is negotiable by indorsement, and the shipment for which it is issued is consigned to the order of the shipper or his agent. Possession of the goods at the point of destination can be obtained only upon presentation of the original bill of lading properly indorsed to the person who presents it. This form is used for making C O.D. freight shipments. It is also used when the goods represented by the bill of lading are to be sold for the shipper by his agent or broker at the point of destination and the shipper does not know who the purchaser will be.

The illustration below shows an order bill of lading. The Selby Mail-Order House shipped to Dayton, Ohio, two cases of electrical supplies and consigned the shipment to their own order. They indorsed the original copy of the bill of lading and mailed it, together with an invoice and a draft for the amount of the invoice, to a bank in Dayton. Upon the payment of the sight draft by the customer, Mr. Worth, the invoice and the bill of lading were given to him. He then presented the bill of lading to the railroad freight office and obtained possession of the merchandise

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